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No. 96-___

In The

Supreme Court of the United States

October Term, 1996

STEVEN G. LOUGH,

Petitioner,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Respondent.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

Should the United States Court of Appeals for the Federal Circuit invalidate a patent on the basis that the invention was in public use more than one year before the date of filing of the application for the patent as a matter of law, despite a jury's express factual finding that there was no prior public use as the use was experimental use?

PARTIES

Pursuant to Supreme Court Rules 14.1(b) and 29.6, Petitioner, Steven G. Lough, discloses that he is a person and there is no parent or subsidiary company to be listed at the present time. The Appellant in the proceeding below, Brunswick Corporation, d/b/a Mercury Marine, is a corporation which does business as Mercury Marine.

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OPINIONS BELOW

The panel opinion of the United States Court of Appeals for the Federal Circuit, reported at 86 F.3d 1113 (Fed. Cir. 1996), including the dissenting opinion of Circuit Judge Plager and the additional comments of Circuit Judge Lourie, is reproduced in the Appendix to this Petition ("Pet. App.") at pages 1-29. The Federal Circuit's order denying rehearing, reported at 103 F.3d 1517 (Fed. Cir. 1997), including the dissenting and concurring opinions, is reproduced at Pet. App. 30-87.

JURISDICTION

The judgment of the United States Court of Appeals for the Federal Circuit was filed and entered on June 12, 1996. On June 26, 1996, Petitioner filed a Petition for Rehearing and Suggestion for Rehearing *In Banc*, which the Court of Appeals denied on January 2, 1997. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

STATUTES INVOLVED

35 U.S.C. § 102 Conditions for patentability; novelty and loss of right to patent

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to

> the date of the application for patent in the United States. . . .

35 U.S.C. § 102(b)

STATEMENT OF THE CASE

A. Introduction

Petitioner, Plaintiff in the underlying case, obtained a judgment in the district court after a jury trial, which judgment was based on the jury finding that the Respondent, Defendant in the underlying case, had infringed Plaintiff's patent both literally and under the doctrine of equivalents, and that the Defendant, had failed to prove any defenses of (a) prior public use; (b) failure to disclose the best mode; and (c) obviousness. A three-judge panel of the Court of Appeals, with one judge dissenting, reversed the judgment finding, as a matter of law on *de novo* review, that Petitioner's patent in suit was invalid under 35 U.S.C. § 102(b) because Petitioner's invention had been in public use more than one year before the patent application was filed. Petitioner's motion for rehearing was denied. Petitioner's suggestion for rehearing *in banc* was denied with four dissenting opinions.

The United States Court of Appeals for the Federal Circuit has decided an important question of federal patent law that has not been, but should be settled by this Court, and in a way that conflicts with relevant decisions of this Court. Effectively, the Court of Appeals for the Federal Circuit has removed the issue of patent invalidity due to public use from the jury as a trier of facts. In *Markman v. Westview Instruments, Inc.*, ___ U.S. ___, 116 S.

Ct. 1384 (1996), this Court decided that patent claim construction is an issue of law for the court, not the jury. In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, ___ U.S. ___, 65 U.S.L.W. 4162 (1997), this Court recently addressed, but did not decide, the issue of whether infringement under the patent doctrine of equivalents should rest with the judge or with the jury as the trier of facts. Inasmuch as the Court granted certiorari in *Markman* and *Warner-Jenkinson*, the Court is aware that there are significant issues in the division of responsibility between the judge and the jury in the determination of patent infringement issues. For these reasons, Petitioner respectfully submits that the instant case presents an appropriate vehicle for the Court to enunciate a consistent national rule concerning the province of the trier of facts on the issue of invalidating public use, versus non-invalidating experimental use.

B. Factual and Procedural History

Petitioner, Steven G. Lough (hereinafter "Lough"), sued Respondent, Brunswick Corporation, d/b/a Mercury Marine (hereinafter "Brunswick"), for Brunswick's infringement of U.S. Patent No. 4,848,775 (hereinafter the " '775 Patent"), which issued on July 18, 1989, and claimed a liquid seal assembly as well as such an assembly in combination with a marine stern drive system. On January 27, 1994, the jury returned a verdict in favor of Lough, finding infringement and lost profit damages of $1,500,000. In answer to question 1 of the special verdict form, the jury found that Brunswick had not proved that any one of Lough's seal assemblies were in public use more than one year before the filing date of his patent

application. On August 26, 1994, Brunswick filed a motion for judgment as a matter of law under Rule 50, Federal Rules of Civil Procedure, and for new trial on damages under Rule 59, Federal Rules of Civil Procedure, asserting that Brunswick had not infringed the '775 Patent; that the '775 Patent was invalid as obvious; that the '775 Patent was invalid under 35 U.S.C. § 102(b), based on public use more than one year before the filing date of Lough's patent application; and that lost-profit damages were inappropriate. The district court denied Brunswick's post-trial motion, entering judgment in favor of Lough and against Brunswick for the sum of $1,500,000 with interest.

Subsequently, Brunswick appealed the judgment to the United States Court of Appeals for the Federal Circuit. In its opinion and judgment rendered June 12, 1996, a 2:1 split panel of the Court of Appeals reversed the district court's denial of Brunswick's motion for judgment as a matter of law on the ground of invalidity because of prior public use, and vacated the jury's award of damages. Judge Lourie, writing for the panel, opined:

> [T]he jury had no legal basis to conclude that the uses of Lough's prototypes were experimental and that the prototypes were not in public use prior to the critical date. . . . Lough's failure to monitor the use of his prototypes by his acquaintances, in addition to the lack of records or reports from those acquaintances concerning the operability of the devices, compel the conclusion that, as a matter of law, he did not engage in experimental use. . . .

> We conclude that the jury's determination that Lough's use of the invention was experimental so as to defeat the assertion of public use was incorrect as a matter of law. The court thus erred in denying Brunswick's JMOL motion on the validity of claims 1-4 of the '775 patent under § 102(b).

Lough v. Brunswick Corporation, 86 F.3d 1113, 1122 (Fed. Cir. 1996) (Pet. App. pp. 18, 19).

Judge Plager, in his dissenting opinion, stated:

> Under our standard of review, the jury's decision to accept Lough's version of the case is not properly subject to reversal. The trial court correctly denied Brunswick's JMOL motion, and this Court should affirm that denial. . . . I believe it is improper and unjust to deny Lough his victory at trial on the question of invalidity under section 102(b), a question properly put to and decided by the jury.

Id. at 1125 (Pet. App. pp. 26, 27).

On January 2, 1997, the Court of Appeals denied a timely filed petition for rehearing and declined rehearing *in banc*, with four judges dissenting. *Lough v. Brunswick Corporation*, 103 F.3d 1517, 1518 (Fed. Cir. 1997) (Pet. App. pp. 31-87). Judge Rader, in a dissenting opinion, stated:

> The outcome of *Lough* turns on the standard of review applied by this court. With any level of proper deference to the fact-finding of those who heard seventeen days of evidence, this court must have affirmed. . . . A factual analysis logically calls for the deferential review accorded questions of fact. Respect for the Supreme Court also calls for deference because

> our nation's highest court has repeatedly instructed that public use is predominantly a question of fact. . . .
>
> Notwithstanding logic and binding precedent, the *Lough* court ventured to designate public use a question of law and extended that error by announcing that experimentation is also subject to unfettered review. Logic sometimes escapes even this distinguished court, but disregard of binding precedent, including the prior jurisprudence of this court and its predecessors, invites irreconcilable conflict and confusion.

Id. at 1529 (Pet. App. at 65-69) (footnote omitted).

Judge Plager, also dissenting, opined:

> [T]he decision by the panel majority to deny the jury any deference and thus arrogate to itself the fact finding has not only caused a gross miscarriage of justice to Mr. Lough, but profoundly contributes to the confusion and misunderstanding that had already begun to emerge around this question of what is, and who decides, experimental use.

Id. at 1526 (Pet. App. at 54-55).

Judge Newman, in another dissenting opinion, stated:

> The need to exercise wisdom or judgment in considering the totality of the circumstances does not convert fact into law and remove the issue from the trier of fact. To the contrary, the exercise of wisdom and judgment when weighing and balancing the evidence is the role of the trier of fact. . . . While the appellate court has full authority to correct jury verdicts that are not

> supported by substantial evidence, such correction does not permit ignoring the trial process. When the jury verdict is sustainable on the evidence, the appellate role is fulfilled.

Id. at 1523 (Pet. App. at 47-48).

Although he had just a high school education and was not a trained marine mechanic, Lough had a great deal of intuitive mechanical ability. Between April 1986 and October 1987, Lough worked as an independent contractor for Marine Service, an authorized MerCruiser dealer in Sarasota, Florida, which serviced boats and marine engines and drives. At Marine Service, Lough repaired motors and stern drives, including Brunswick's MerCruiser stern drives, and encountered many of such drives having badly corroded shift shaft upper end openings which precluded effective sealing.

A stern drive is a propulsion device for a boat in which the engine is located inside the boat and is coupled to an outdrive located outside the rear of the boat. The outdrive is housed in a driveshaft housing including an aluminum bell housing. The stern drive includes a shifting system having a gear shift shaft assembly for placing the outdrive in forward, reverse or neutral gear. The bell housing has apertures for the shift shaft assembly. An upper seal assembly and a lower seal assembly, located at the respective upper and lower ends of the shift shaft assembly, are supposed to prevent sea water and exhaust from passing through these apertures and causing corrosion. It was the MerCruiser upper seal assembly that Lough noticed often failed in the stern drives he was working on. Lough designed a new upper seal assembly that isolated a part of the seal assembly (its annular seal)

from the aluminum bell housing in order to resist such corrosion in the hostile marine environment.

When Lough conceived his invention, while working at Marine Service, he hoped that his prototype seal assembly would solve the seal problem. Further, he had to determine whether his prototype worked for its intended purpose and solved the seal problem in the environment at the upper end of a stern drive shift shaft. Lough obtained brass stock and machined some prototypes of the bushing by hand on his grandfather's metal lathe. After some trial and error, in which Lough discarded numerous bushings as unacceptable due to dimensional variations, Lough was able to hand-make six usable prototypes which were properly dimensioned to fit into a MerCruiser stern drive.

On June 6, 1988, Lough filed a patent application entitled "Liquid Seal for Marine Stern Drive Gear Shiftshafts," which issued as the '775 Patent on July 18, 1989. The preferred embodiment of the invention, and a summary of Claim 1 of the '775 Patent is contained at Pet. App. pp. 6-7. After Brunswick's engineers spoke to Lough and obtained one of his patented seal assemblies, they offered to procure his patent rights. When Lough refused their offer of $50,000, Brunswick designed an improved upper seal assembly, which (the jury later found) infringed upon the '775 Patent when Brunswick incorporated its new upper seal assembly in its new boats and sold it as a replacement part under its Quick Silver line. This effectively ended demand for Lough's seal assembly, which was not an authorized Mercruiser replacement part. Over a two-year period, according to Lough's expert economist, Brunswick purchased over

120,000 infringing seal assemblies to resell as new or replacement parts.

In order to verify his seal assembly's operability, including its durability as compared with Brunswick's troublesome seal arrangement, effectiveness in different end use environments, and the ability of different mechanics to install the seal assembly, Lough arranged for testing of six prototypes over the span of more than one year. Lough considered this to be a reasonable test period, since this exceeded Brunswick's own warranty period. During this period, Lough did not observe any failures or receive any negative feedback about the operability of his prototypes in their test environment.

In the spring of 1986, as part of his testing of the operability of his seal assembly, Lough installed one of his prototypes in his own boat at home. Lough installed a second prototype in the boat of his personal friend, Tom Nickla. A third prototype was installed in the tow boat of Jim Yow, a co-owner of Marine Service where Lough worked. Later, while working at Marine Service, Lough installed a fourth prototype in the boat of Jack Wherry, a customer of Marine Service who had considerable problems with his stern drive resulting from corrosion of the upper shift shaft bell housing opening. Lough did not charge for these prototypes. Mr. Lough, Mr. Nickla and Richard Paetsch of Marine Service all testified that these prototype seal assemblies were installed for testing purposes.

These four boats in which the prototype seal assemblies were installed were directly under Lough's supervision and within his ability to periodically examine. Of

course, he had this control with the seal assembly installed in his own boat, and also the Yow and Wherry boats at Marine Service where he worked. Lough testified that he installed the seal assemblies in the two boats at Marine Service where he worked so he could see them from time to time. Lough wanted to put the seal assembly in Wherry's boat as it sat in the water most of the time and would periodically return to the Marina, so that he could periodically check the performance of his seal assembly. Indeed, Lough testified that he took pictures of the stern drive with the seal in place in Wherry's boat some six to eight months after he installed the seal assembly to show that it was working, which pictures were admitted at trial as exhibits. Mr. Yow, the owner of the marina where Lough worked, testified that every three to six months his tow boat, in which a Lough test seal assembly was installed, was pulled out of the water to check the performance of the seal. Finally, Mr. Nickla, in whose boat a Lough seal assembly prototype was installed, testified that a year or so after the seal assembly was installed, he called Lough to explain that Lough's seal assembly was still in good shape. Lough also testified that his acquaintances at Marine Service provided the ultimate in positive feedback; they suggested that he patent the seal assembly.

Lough also gave two of the prototype seal assemblies to his longtime friends (since high school days) Rodney Presley and Randy Bradley, who were employees of Gulfwind Marine in Sarasota, with the express understanding that they would install the two prototypes in boats with the troublesome seal problem in order to test them and determine if they worked. One of these prototypes was

installed by Mr. Bradley in the boat of Mark Liberman, a local charter guide and friend of the owner of Gulfwind Marine, who regularly received free maintenance service therefrom. Mr. Liberman was not billed for either the seal assembly or the installation. The other of the two prototypes was installed in a troublesome, used demonstration boat at Gulfwind Marine. Mr. Bradley and Mr. Presley had no knowledge of what happened to the demonstration boat at Gulfwind. Mr. Bradley testified that he installed the seal assemblies in two types of boats with different problems so there would be a "good test." Mr. Bradley then testified that he periodically inspected the demonstration boat at Gulfwind. Mr. Presley, called in Brunswick's case, testified that the seal assemblies had been installed in Gulfwind boats to see what would happen on a "[t]rial basis." Lough did not charge Mr. Presley, Mr. Bradley, Gulfwind Marine or anyone else for any of the prototypes.

After determining through experimental testing that the prototypes worked, and based on his friends' advice, Lough inquired about obtaining a patent on his invention. On May 31, 1988, Lough contacted Charles Prescott, a Sarasota patent attorney, about a patent application. In accordance with Mr. Prescott's advice, no seal assemblies were placed on sale until the June 6, 1988 filing date of Lough's patent application.

REASONS FOR GRANTING THE WRIT

THE FEDERAL CIRCUIT'S DETERMINATION THAT PRIOR PUBLIC USE WHICH INVALIDATES A PATENT IS A QUESTION OF LAW IS ERRONEOUS AND CONFLICTS WITH THIS COURT'S PRECEDENTS.

35 U.S.C. § 102(b) provides that an inventor is not entitled to a patent if the invention was in public use for more than one year before the filing date of the patent application. This Court has consistently held that what constitutes such public use is a question of fact. In *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 16 (1829), this Court held that whether an inventor has engaged in public use is a fact question for the jury:

> The question which generally arises at trials, is a question of fact, rather than of law; whether the acts or acquiescence of the party furnish, in the given case, satisfactory proof of an abandonment, or dedication of the invention to the public. But when *all the facts* are given, there does not seem to be any reason why the court may not state the legal conclusion deducible from them. In this view of the matter, the only question would be, whether, upon general principles, the facts stated by the court would justify the conclusion.

27 U.S. at 16 (emphasis added).

The Court has consistently followed *Pennock* in ruling that questions of public use and on sale statutory bars are factual questions for the jury, and that appellate courts must defer to the factual findings of trial courts. *Gayler v. Wilder*, 51 U.S. (10 How.) 477, 484 (1850) (jurors are the judges of facts determinative of prior public use); *Kendall*

v. Windsor, 62 U.S. (21 How.) 322, 331 (1858) (whether the inventor has surrendered his patent rights is a question of fact, "peculiarly within the province of the jury"); *Cantrell v. Wallick*, 117 U.S. 689, 696 (1886) (proof of public use is dependent on testimony); *General Talking Pictures Corp. v. Western Electric Co.*, 304 U.S. 175, 182-83 (1938) (deferring to the finding of no public use by district and circuit courts based on adequate evidence). *Accord, Consolidated Fruit-Jar Co. v. Wright*, 94 U.S. 92, 94 (1876); ("The result must always depend upon the purpose and incidents accompanying the act or acts relied upon [as public uses].") *Manning v. Cape Ann Isinglass & Glue Co.*, 108 U.S. 462, 465 (1882); *Smith & Griggs Mfg. v. Sprague*, 123 U.S. 249 (1887); *International Tooth-Crown Co. v. Gaylord*, 140 U.S. 55, 64 (1891). That § 102(b) statutory bar questions were primarily questions for the jury, to whose factual findings the appellate courts defer, is also clear from cases predating the modern Federal Circuit.[1]

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[1] *In re Reese*, 290 F.2d 839, 841 (C.C.P.A. 1961) (recognizes that prior public use under § 102(b) raises an issue of fact); *Smith v. United States*, 145 F.Supp. 396 (Ct. Cl. 1956) (patent validity and prior public use is a factual issue). The non-Federal Circuit appellate decisions uniformly concluded that § 102(b) is predominately a question of fact. *See, e.g., Watson v. Allen*, 254 F.2d 342, 346-47 (D.C. Cir. 1958); *Atlas v. Eastern Air Lines, Inc.*, 311 F.2d 156, 159-60 (1st Cir. 1962); *McGraw-Edison Co. v. Central Transformer Corp.*, 308 F.2d 70, 73 (8th Cir. 1962); *FMC Corp. v. F.E. Myers & Bros. Co.*, 384 F.2d 4, 10 (6th Cir. 1967); *Lear Siegler, Inc. v. Ark-Ell Springs, Inc.*, 569 F.2d 286, 291 (5th Cir. 1978); *DeLong Corp. v. Raymond Int'l, Inc.*, 622 F.2d 1135, 1141 (3d Cir. 1980); *DelMar Eng'g Lab. v. Physio-Tronics, Inc.*, 642 F.2d 1167, 1169 (9th Cir. 1981).

This Court analyzed the doctrine of public use in the specific context of experimental use in *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877). In that classic case, the Court found a new type of pavement material not to have been in public use, even though used on a public road for six years, since the inventor's purpose was to test the material under actual conditions. *City of Elizabeth* recognizes that when an accused infringer defends by claiming patent invalidity based on a § 102(b) public use bar, the inventor may negate that defense based upon "experimental use," *i.e.*, even though the exposure of the invention to the public occurred more than one year before the filing date of the patent application, the public use will not invalidate the patent if the use is experimental. In *City of Elizabeth*, 97 U.S. at 135, the Court recognized that an inventor with a "bona fide intent of testing" could not be held to have engaged in an invalidating public use. The Court reasoned that to determine the question of public use, it was necessary to examine the circumstances of the experimental use and the inventor's object and purpose. 97 U.S. at 133. Examining the inventor's intent, object and purpose is inherently a fact-finding function, and the Court has deferred to such fact findings in making a determination of an experimental use. *Root v. Third Ave. R.R. Co.*, 146 U.S. 210, 225 (1892); *Electric Storage Battery Co. v. Shimadzu*, 307 U.S. 5, 20 (1939).

The Federal Circuit began its departure from this Supreme Court precedent in holding that public use is a question of law. *See Hycor Corp. v. Schlueter Co.*, 740 F.2d 1529, 1535 (Fed. Cir. 1984); *Moleculon Research Corp. v.*

CBS, Inc., 793 F.2d 1261, 1265 (Fed. Cir. 1986), both recognizing that though public use is a question of law, the facts underlying public use are subject to clearly erroneous review. In *Manville Sales Corp. v. Paramount Systems, Inc.*, 917 F.2d 544, 549 (Fed. Cir. 1990), cited by the majority in *Lough*, the court stated as follows:

> Whether or not an invention was on sale or in public use within the meaning of section 102(b) is a question of law that this court reviews de novo; however, factual findings underlying the trial court's conclusion are subject to the clearly erroneous standard of review.

917 F.2d at 549.

Although such a standard departs from Supreme Court precedent, it was at least consistent with the spirit of Supreme Court precedent in that the appellate court paid some deference to the jury's findings. Thus, it is not as radical a departure as the *Lough* court's pure legal standard.

Despite Supreme Court precedent recognizing both that a prior public use is an inherently factual issue and that experimental use is a factual inquiry, and despite the Federal Circuit's own precedent recognizing that even though public use may be a question of law, the facts underlying the conclusion of public use are subject to clearly erroneous review, the majority in *Lough* completely abandoned factual inquiry and deference due to the jury as a finder of fact when dealing with the question of experimental use. The *Lough* court flatly stated, "Whether an invention was in public use prior to the critical date within the meaning of § 102(b) is a question of law." 86 F.3d at 1120. Moreover, the court stated: "To

determine whether a use is 'experimental,' a question of law, the totality of the circumstances must be considered. . . . " *Id.* For the proposition that a public use question is a question of law, the *Lough* court cited the *Manville* case, but ignored *Manville*'s language recognizing that despite § 102(b) being a question of law, factual findings underlying the trial court's conclusion are subject to the clearly erroneous standard. To support its erroneous ruling that the court considers the totality of the circumstances in determining experimental use as a separate question of law, the *Lough* court cites three cases which actually stand for the proposition that experimental use is a factual inquiry. *See Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1565 (Fed. Cir. 1987); *Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498 (Fed. Cir. 1992); *TP Laboratories, Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984), which all recognize that fact issues are involved in the determination of experimental use.

The *Lough* court also departed from Federal Circuit precedent in separating the concept of experimental use from the issue of prior public use and invoking "required indicia" to determine if an experimental use had occurred as a matter of law. Under *TP Lab.*:

> It is incorrect to impose on the patent owner, as the trial court in this case did, the burden of proving that a 'public use' was 'experimental.' These are not two separable issues. It is incorrect to ask: 'Was it a public use?' and then, 'Was it experimental?'. Rather, the court is faced with a single issue: Was it a public use under section 102(b)?

724 F.2d at 971. Instead of deferring to the jury's finding that there was no public use, the *Lough* court instead asked: "The question framed on appeal is whether Lough's alleged experiments lacked enough of these required indicia so that his efforts cannot, as a matter of law, be recognized as experimental." 86 F.3d at 1121. As recognized in the dissent of Judge Rader:

> To reach its incorrect result, the *Lough* court had to separate experimental use from its proper context of public use, then create a separate list of required elements for a factual inquiry, and finally make the separate list a question of law to avoid the deference due to the jury verdict. Each error sent the *Lough* court fishing in deeper waters without a license.

103 F.3d at 1534. Effectively, the *Lough* court imposed the burden on the inventor, Mr. Lough, for the first time on appeal, to establish that his use of the six seal assemblies was experimental, rather than requiring the appellant infringer, Brunswick, to show that the jury finding that Lough did not engage in public use was clearly erroneous.

In looking at the totality of the circumstances, the Federal Circuit majority in *Lough* simply selected facts with unfavorable inferences from the record, applied some circumstances and not the totality, and reweighed this evidence against Lough, substituting their view of the facts for that of the jury. The *Lough* court emphasized the absence of two indicia to the exclusion of all others in the totality of the circumstances: (1) Lough's failure to maintain supervision and control throughout the testing by monitoring his acquaintances' use of the prototypes;

and (2) Lough's failure to keep adequate records and reports of the test results. 86 F.3d 1121-22. As recounted in the Factual and Procedural History, there was ample evidence, ignored by the *Lough* majority, that even though Lough did not keep formal written records, he had taken photographs of some of the prototypes in use, as well as received verbal feedback from some of his acquaintances. Yet in *TP Lab.*, 724 F.2d at 969, experimental use was found despite "scanty" records "at best." The *Lough* majority also ignored evidence that Lough had a close relationship with each of the persons to whom he entrusted the seal assemblies with specific instructions to each that the seal assemblies were installed for testing purposes. Yet in *Moleculon*, 793 F.2d at 1266-67, close relationship and notification of experimental purpose were adequate substitutes for control. The *Lough* court gave little credit to Lough's unwillingness to commercially exploit the invention before filing, yet in *Moleculon*, great weight was given to the inventor's lack of commercial advantage. *Id.* Finally, the *Lough* court also completely ignored other recognized indicators of experimental use such as the inventor's careful tailoring of the test to the nature of the invention and the hidden nature of the experiment. *See, e.g., Manville*, 917 F.2d at 550-51. Reapplying a factual totality of circumstances test on a cold appellate record without deference to the facts found by the jury is indeed an arbitrary and standardless approach which makes the law of public use completely unpredictable.

When a court evaluates whether an invention was in public use, it is not to apply some formulaic test, but consider how the totality of the circumstances comports

with policies underlying the public use bar, which in effect define it. *Id.* at 549. These policies include discouraging removal of inventions from the public domain which the public believes are freely available, prohibiting extension of the period for exploitation of the invention, and favoring prompt and undisputed disclosure of the invention. *Id.* at 550. Lough's uses before the critical date, i.e., June 6, 1987, do not implicate these policies as he did nothing to lead the public to believe the prototype seal assemblies were in the public domain, he did not place the prototype seal assemblies on sale, and until his prototype seal assemblies were sufficiently tested in a marine environment for a year or so, he did not have a proven invention to disclose. Since the policies are not applicable, the totality of the circumstances test should not be applied to reach the result that the public use bar invalidates the '775 Patent.

Historically, appellate courts have been required to give deference to the triers of fact based on the clearly erroneous or substantial evidence standard in reviewing oral testimony and other evidence. A "totality of the circumstances" test for experimental use is a classic jury question. *See Best v. District of Columbia*, 291 U.S. 411, 415 (1934) ("Where uncertainty arises either from a conflict of testimony or because, the facts being undisputed, fair-minded men may honestly draw different conclusions from them, the question is not one of law but of fact to be settled by the jury.") An appellate court's role in reviewing such a fact question requires appropriate deference to the trier of fact; indeed, an appellate court may not revise a district court's plausible account of the evidence even though it would have weighed the evidence differently

had it been the trier of fact. *Anderson v. City of Bessemer City*, 470 U.S. 564, 573-74 (1985). The Federal Circuit is unique in the federal system in that it is the sole appellate court for patents and certain other appeals. Given this unique position, the Federal Circuit should be especially subject to limitations on appellate review to which other appellate courts are bound. Logic dictates that in determining the issues of public use and experimental use, a factual determination must be made before legal principles can be applied.

To relabel factual issues as questions of law subject to *de novo* review by the Federal Circuit is an exercise in semantics which imbalances the roles of the trier of fact and the Court of Appeals. The Federal Circuit can now pick, choose and reassess various circumstantial factors concerning public use to redecide cases on appeal arbitrarily, and encourage appellate litigation. It is submitted that such a result increases uncertainty, produces inconsistent and irreconcilable results, and makes the Federal Circuit a super advisory agency of invalidity for all patent claims. Indeed, patent holders or infringers might be encouraged to simply file actions for declaratory judgment of validity and seek to immediately appeal the decision to the Federal Circuit, which then can issue an advisory on whether or not the patent is valid, prior to attempting to further litigate the patent in court.

Much of the *Lough* court's error derives from the fact that there is a split of authority within the Federal Circuit and a departure from this Court's precedent concerning the proper role of the fact finder and the appellate court

in determining issues of prior public use and experimental use.[2] This Court should resolve the split of authority by reaffirming its precedent, articulating a consistent national rule concerning whether public use and experimental use are issues of law or issues of fact, and setting forth clear guidelines for the evaluation of a prior public use versus an experimental use.

On the day after Lough's petition for rehearing was denied, the Federal Circuit decided a case presenting generally the same issue – the proper deference given to the district court's findings of fact related to a § 102(b) bar. *Micro Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 103 F.3d 1538 (Fed. Cir. 1997). On appeal from a bench trial, a divided 2:1 panel of the Federal Circuit in *Micro Chemical* reversed the district court and held that the on-sale bar under § 102(b) is a question of law and that the undisputed facts concerning an alleged offer to sell did not constitute an on-sale bar within the meaning of § 102(b). *Micro Chemical*, 103 F.3d at 1544-45.

Counsel for Great Plains Chemical Co., Inc. *et al.* has informed counsel for Petitioner Lough that they will be

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[2] As stated by the Federal Circuit: "A decision that fails to consider Supreme Court precedent does not control if the court determines that the prior panel would have reached a different conclusion if it had considered controlling precedent. *See Tucker v. Phyfer*, 819 F.2d 1030, 1035 n. 7 (11th Cir. 1987)." *Atlantic Thermoplastics Co., Inc. v. Faytex Corp.*, 970 F.2d 834, 839 n. 2 (Fed. Cir. 1992).

If a panel including at least two of the dissenters in *Lough* is confronted with a choice between the *Lough* precedent and the extensive Supreme Court authority that they cite, what should we expect them to follow?

filing a petition for writ of certiorari in *Micro Chemical*. It is submitted that both the *Lough* and *Micro Chemical* cases involve split decisions of the Federal Circuit in an important issue where guidance of this Court is necessary.

In the dissenting opinion in *Micro Chemical*, Circuit Judge Mayer, who was apparently silent in both of the *Lough* decisions, stated:

> Because proper deference to the district court's findings of fact about the on sale bar compels the conclusion that [the] patent is invalid, I dissent. . . .
>
> Although we may reverse a trial court's ultimate conclusion that the totality of evidence supports a result, we cannot reverse its factual findings themselves, absent a definite and firm conviction that a mistake has been committed.

Micro Chemical, 103 F.3d at 1551, 1553 (Mayer, C.J., dissenting) (citing *Anderson*, 470 U.S. at 573).

Therefore, both *Lough* (public use bar, jury trial) and *Micro Chemical* (on-sale bar, bench trial) pertain to the important issue of the proper deference given by the Court of Appeals to findings of fact related to a § 102(b) bar. Certiorari is necessary to settle this continuing issue within the Federal Circuit and bring that court's approach in line with settled law and decisions of this Court.

CONCLUSION

The Federal Circuit has erroneously interpreted the precedent of this Court, has inconsistently applied the

conflicting precedents within the Federal Circuit, and has created confusion over the proper role of the court and the jury in determining questions of public use versus experimental use pursuant to § 102(b). This conflict must be resolved by this Court to provide uniformity of rule and process, and simultaneously, prevent a gross miscarriage of justice to Mr. Lough, the patentee.

For these reasons, Petitioner respectfully submits that this Court should grant the Petition and should reverse the judgment of the Federal Circuit and order the reinstatement of the judgment and jury verdict of the district court.

Respectfully submitted,

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United States Court of Appeals
for the Federal Circuit

95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION, d/b/a
MERCURY MARINE,

Defendant-Appellant.

DECIDED: June 12, 1996

Before PLAGER, LOURIE, and CLEVENGER, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* Lourie. Dissenting opinion filed by *Circuit Judge* Plager. Additional remarks filed by *Circuit Judge* Lourie, with whom *Circuit Judge* Clevenger joins.

LOURIE, Circuit Judge.

Brunswick Corporation, d/b/a Mercury Marine, appeals from the final judgment of the United States District Court for the Middle District of Florida in which the court denied Brunswick's Motion for Judgment as a Matter of Law and its Motion for New Trial after a jury verdict of infringement of U.S. Patent 4,848,775, owned by the inventor Steven G. Lough.[1] Because the court erred

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[1] *Lough v. Brunswick Corp.*, No. 92-799-CIV-T-21A (M.D. Fla. Feb. 13, 1995) (amended judgment); *Lough v. Brunswick Corp.*,

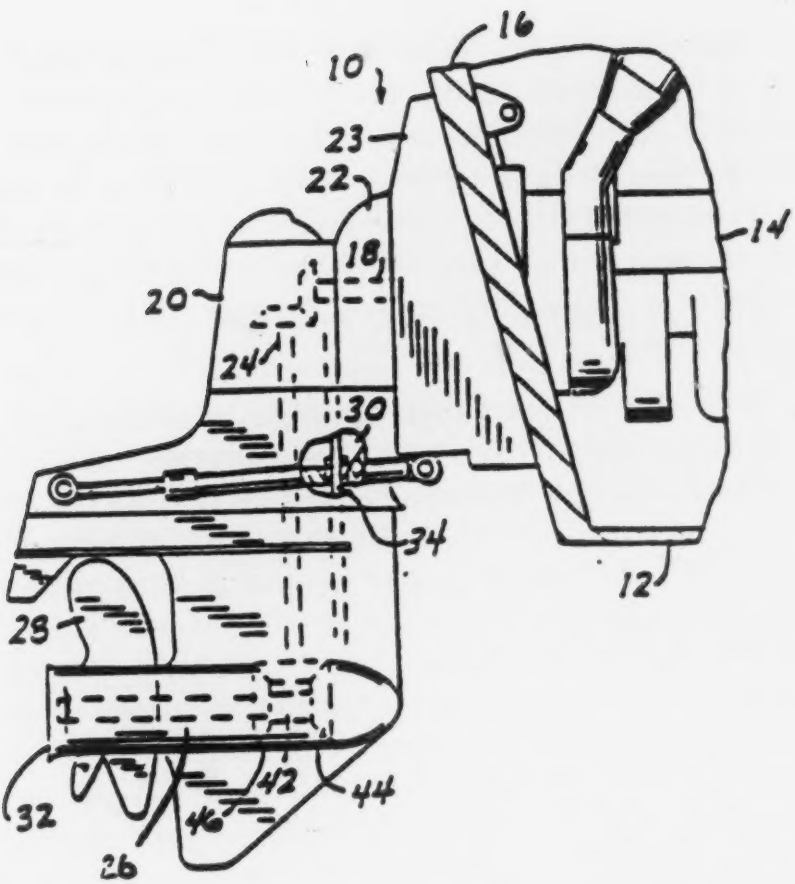
in denying Brunswick's Motion for Judgment as a Matter of Law, we reverse in part and vacate in part.

BACKGROUND

Stern drives are marine propulsion devices for boats in which the engine is located inside the boat and is coupled to an outdrive, which includes a propeller located outside the boat ("inboard/outboard boat"). A typical stern drive arrangement is illustrated below.[2]

No. 92-799-CIV-T-21A (M.D. Fla. Mar. 27, 1995) (second amended judgment); *Lough v. Brunswick Corp.*, No. 92-799-CIV-T-21A (M.D. Fla. April 13, 1995) (permanent injunction).

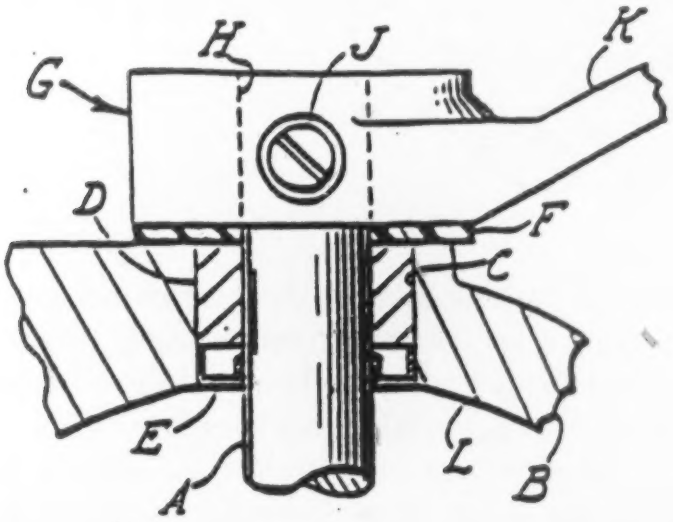
[2] This figure is reproduced from U.S. Patent 5,052,958, "Marine Drive for Easier Shifting," which is assigned to Brunswick.



The outdrive is housed in a drive shaft housing (20), which includes an aluminum bell housing (22). A propeller (28) is located at the lower end of the outdrive and is driven by the engine through a system of shafts (18, 24, and 26). The stern drive (10) includes a shifting system for placing the outdrive in forward, reverse, or neutral gear. As part of the shifting system, a gear shift shaft assembly (34) extends between a shift lever, which is connected through a gear shift cable to user controls for throttle and gear selection, and a clutch (42), which controls forward and reverse gears (44 and 46). At the upper

and lower ends of the gear shift shaft assembly (34), an upper seal assembly and a lower seal assembly prevent sea water and exhaust from causing corrosion by passing through the bell housing apertures provided for the shift shaft assembly (34). The lower seal assembly protects the gear controls at the lower end of the shift shaft (34), and the upper seal assembly protects the gear shift cable and user controls.

In 1986, Steven G. Lough worked as a repairman for a boat dealership in Sarasota, Florida. While repairing Brunswick inboard/outboard boats, he noticed that the upper seal assembly in the stern drives often failed due to corrosion. A typical upper seal assembly from a Brunswick motor is shown below.

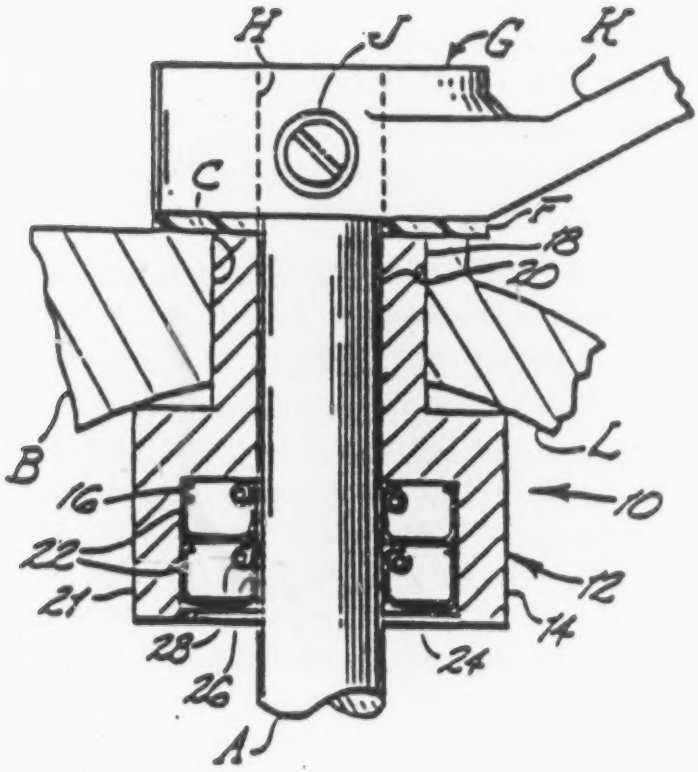


The upper seal assembly comprises a brass bushing (D) and an annular seal (E). The brass bushing (D) is forced into a bell housing aperture (C). An annular seal (E) is installed below the brass bushing (D) and is in direct contact with the aluminum bell housing (B).

Lough determined that the corrosion in the upper seal assembly occurred due to contact between the annular seal (E) and the bell housing aperture (C). He designed a new upper seal assembly that isolated the annular seal (E) from the aluminum bell housing (B) in order to prevent such corrosion.

After some trial and error with his grandfather's metal lathe, he made six usable prototypes in the spring of 1986. He installed one prototype in his own boat at home. Three months later, he gave a second prototype to a friend who installed it in his boat. He also installed prototypes in the boat of the owner of the marina where he worked and in the boat of a marina customer. He gave the remaining prototypes to longtime friends who were employees at another marina in Sarasota. Lough did not charge anyone for the prototypes. For over a year following the installation of these prototypes, Lough neither asked for nor received any comments about the operability of the prototypes. During this time, Lough did not attempt to sell any seal assemblies.

On June 6, 1988, Lough filed a patent application entitled "Liquid Seal for Marine Stern Drive Gear Shift Shafts," which issued as the '775 patent on July 18, 1989. Figure 4 of the patent illustrates the preferred embodiment of the invention and is shown below.



Claim 1, with reference letters and numbers to figure 4 added, is representative of the claims at issue:

> 1. A liquid seal [10] structured to provide a watertight barrier between adjacent the upper end of an elongated gear shift shaft [A] in a marine stern drive system and an aperture [C] in the stern drive bell housing [B], the aperture [C] located between the exhaust passageway and the parallel adjacent gimbal passageway of the bell housing [B], the aperture for receiving the upper end of the gear shift shaft [A] installed therethrough, said liquid seal [10] comprising:

a rigid bushing [12] having coaxial upper [18] and lower portions [14];

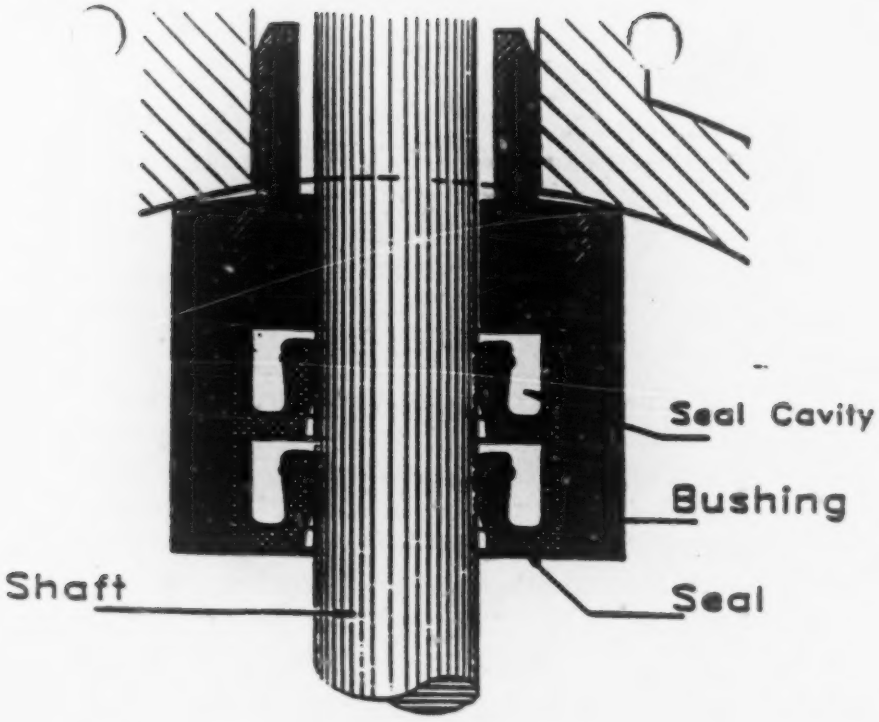
said upper portion [18] having a first outer surface structured to be sealably urged into the bell housing aperture [C] to form a watertight junction therebetween and thusly positioning said lower portion [14] against the top surface of the exhaust passageway;

said upper portion [18] also having a longitudinal shift shaft aperture [20] generally concentric with and extending along the length of said upper portion [18] structured to supportively receive the upper end of the gear shift shaft [A] for supportive rotation therein;

said lower portion [14] having a second outer surface [21] radially larger than said first outer surface and positioned in the exhaust passageway and a generally concentric seal cavity [16] continuous with, and larger than, said shift shaft aperture [20] extending along the length of said lower portion [14];

at least one annular seal [22] structured to have its outer surface sealably urged into said seal cavity [16] to form a watertight junction therebetween and to have its inner surface coaxial with said second outer surface and sealably mate against the cylindrical surface of the upper end of the gear shift shaft [A].

After learning of Lough's invention, Brunswick designed its own improved upper seal assembly. This upper seal assembly is shown below:



In addition to a bushing with an upper and lower portion, Brunswick's upper seal assembly included its own patented gap technology.[3] This gap spaced the upper portion of the bushing from the shift shaft to alleviate

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[3] Brunswick is the assignee of U.S. Patent 5,052,958 for a "Marine Drive with Easier Shifting." The '958 patent relates to an intermediate bushing that provides a seal between an aperture in the bell housing and an intermediate point along the shift shaft. The patent claims provide for a gap between the intermediate bushing and the shift shaft. This gap prevents binding of the shift shaft when corrosion between the intermediate bushing and the aperture causes the bushing to contract radially inward toward the shift shaft. The '958 patent does not disclose the use of the gap technology in an upper seal assembly.

crushing that might otherwise occur due to corrosion between the bushing and the bell housing. Brunswick incorporated its new upper seal assembly in its "Alpha One" inboard/outboard boat. In addition, it sold this seal assembly as a replacement part under its "Quicksilver" line of replacement parts.

Lough sued Brunswick on June 12, 1993, alleging infringement of the '775 patent. Brunswick counterclaimed for a declaratory judgment of patent noninfringement, invalidity, and/or unenforceability. A jury found that Brunswick failed to prove that Lough's invention was in public use before the critical date on June 6, 1987, one year prior to the filing date of the '775 patent. The jury also found that Brunswick infringed claims 1-4 of the '775 patent, both literally and under the doctrine of equivalents. Based on its infringement finding, the jury awarded Lough $1,500,000 in lost profits. After trial, Brunswick filed a Motion for Judgment as a Matter of Law in which it argued, *inter alia*, that the claimed invention was invalid because it had been in public use before the critical date. Brunswick also filed a Motion for New Trial on damages. The court denied Brunswick's motions without any comment. *Lough v. Brunswick Corp.*, No. 92-799-CIV-T-21A (M.D. Fla. Feb. 13, 1995). Brunswick appeals.

DISCUSSION

When a party moves for JMOL in a case tried to a jury, we review *de novo* the district court's decision by reapplying the JMOL standard. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 975, 34 USPQ2d 1321, 1326

(Fed. Cir. 1995) (in banc), *aff'd on other grounds*, 116 S. Ct. 1384, 38 USPQ2d 1461 (1996). Judgment as a matter of law against a winning party is appropriate when that "party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue. . . . " Fed. R. Civ. P. 50(a)(1).We also review the legal standards that the jury applied in reaching its verdict to determine whether they were correct as a matter of law. *Id.* When a legal issue is submitted to a jury without an objection, we treat the jury's verdict on the legal issue as a resolution of all genuinely disputed underlying factual issues in favor of the verdict winner. *Mendenhall v. Cedarapids, Inc.*, 5 F.3d 1557, 1562 n.3, 28 USPQ2d 1081, 1085 n.3 (Fed. Cir. 1993), *cert. denied*, 114 S. Ct. 1540 (1994). We review the jury's resolution of all factual disputes for substantial evidence. *Markman*, 52 F.3d at 975, 34 USPQ2d at 1326.

Brunswick challenges, *inter alia*, the court's denial of its motion for JMOL on the issue of public use. Brunswick argues that the district court erred in denying its motion for JMOL because the uses of Lough's prototypes prior to the critical date were not experimental. Brunswick asserts that Lough did not control the uses of his prototypes by third parties before the critical date, failed to keep records of the alleged experiments, and did not place the parties to whom the seals were given under any obligation of secrecy. Based on this objective evidence, Brunswick argues that the uses of Lough's prototypes before the critical date were not "experimental." Therefore, Brunswick contends that the jury's verdict was incorrect as a matter of law and that the court erred in denying its JMOL motion.

Lough counters that the tests performed with the six prototypes were necessary experiments conducted in the course of completing his invention. He argues that when the totality of circumstances is properly viewed, the evidence supports the jury's conclusion that those uses were experimental. Lough maintains that a number of factors support the jury's experimental use conclusion, including evidence that he received no compensation for the prototypes, he did not place the seal assemblies on sale until after he filed his patent application, and he gave the prototypes only to his friends and personal acquaintances who used them in such a manner that they were unlikely to be seen by the public. He further argues that, to verify operability of the seal assemblies, prototypes had to be installed by mechanics of various levels of skill in boats that were exposed to different conditions. Thus, he asserts that the court did not err in denying Brunswick's JMOL motion. We disagree with Lough.

One is entitled to a patent unless, *inter alia*, "the invention was . . . in public use . . . in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102(b) (1994). We have defined "public use" as including "any use of [the claimed] invention by a person other than the inventor who is under no limitation, restriction or obligation of secrecy to the inventor." *In re Smith*, 714 F.2d 1127, 1134, 218 USPQ 976, 983 (Fed. Cir. 1983) (citing *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881)). An evaluation of a question of public use depends on "how the totality of the circumstances of the case comports with the policies underlying the public use bar." *Tone Bros. v. Sysco Corp.*,

28 F.3d 1192, 1198, 31 USPQ2d 1321, 1324 (Fed. Cir. 1994), *cert. denied*, 115 S. Ct. 1356 (1995). These policies include:

> (1) discouraging the removal, from the public domain, of inventions that the public reasonably has come to believe are freely available; (2) favoring the prompt and widespread disclosure of inventions; (3) allowing the inventor a reasonable amount of time following sales activity to determine the potential economic value of a patent; and (4) prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed time.

Id., 1198, 31 USPQ2d at 1324-25. A patentee may negate a showing of public use by coming forward with evidence that its use of the invention was experimental. *See TP Lab. v. Professional Positioners, Inc.*, 724 F.2d 965, 971, 220 USPQ 577, 582 (Fed. Cir.) ("[I]f a *prima facie* case is made of public use, the patent owner must be able to point to or must come forward with convincing evidence to counter that showing."), *cert. denied*, 469 U.S. 826 (1984).

Neither party disputes that Lough's prototypes were in use before the critical date. Thus, both parties agree that the issue presented on appeal is whether the jury properly decided that the use of Lough's six prototypes in 1986, prior to the critical date, constituted experimental use so as to negate the conclusion of public use.[4]

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[4] The trial judge instructed the jury as follows:

The law requires that an inventor must file a patent application within one year after his invention is publicly used. Public use means any use of Mr. Lough's invention by any person other than Mr. Lough who was not limited or restricted

Whether an invention was in public use prior to the critical date within the meaning of § 102(b) is a question of law. *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 549, 16 USPQ2d 1587, 1591 (Fed. Cir. 1990).

"The use of an invention by the inventor himself, or of any other person under his direction, by way of experiment, and in order to bring the invention to perfection, has never been regarded as [a public] use." *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126, 134 (1877). This doctrine is based on the underlying policy of providing an inventor time to determine if the invention is suitable for its intended purpose, in effect, to reduce the invention to practice. *See id.* at 137 ("It is sometimes said that an inventor acquires an undue advantage over the public by delaying to take out a patent . . . but this cannot be said with justice when the delay is occasioned by a *bona fide* effort to bring his invention to perfection, or to ascertain whether it will answer the purpose intended."); *see also RCA Corp. v. Data General Corp.*, 887 F.2d 1056, 1061, 12 USPQ2d 1449, 1453 (Fed. Cir. 1989) ("[E]xperimental use,. which means perfecting or completing an invention to the point of determining that it

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in their activities regarding the invention, or not obligated to secrecy by Mr. Lough. Such use, however does not invalidate Mr. Lough's patent if the use was primarily for bona fide experimental purposes.

. . . .

. . . The parties do not dispute that the five seal assemblies were used by others before June 6, 1987. *The only dispute is whether these uses qualify as experimental uses. The law places the burden on Mr. Lough to come forward with convincing evidence showing that these uses were experimental uses* [emphasis added].

will work for its intended purpose, ends with an actual reduction to practice."). If a use is experimental, it is not, as a matter of law, a public use within the meaning of section 102.

To determine whether a use is "experimental," a question of law, the totality of the circumstances must be considered, including various objective indicia of experimentation surrounding the use, such as the number of prototypes and duration of testing, whether records or progress reports were made concerning the testing, the existence of a secrecy agreement between the patentee and the party performing the testing, whether the patentee received compensation for the use of the invention, and the extent of control the inventor maintained over the testing. *See TP Laboratories*, 724 F.2d at 971-72, 220 USPQ at 582; *see also Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498, 25 USPQ2d 1290, 1294 (Fed. Cir. 1992) (listing objective evidence to be considered to determine if use is "experimental"), *cert. denied*, 508 U.S. 912 (1993); *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1564, 4 USPQ2d 1210, 1214 (Fed. Cir. 1987) (same). The last factor of control is critically important, because, if the inventor has no control over the alleged experiments, he is not experimenting. If he does not inquire about the testing or receive reports concerning the results, similarly, he is not experimenting.

In order to justify a determination that legally sufficient experimentation has occurred, there must be present certain minimal indicia. The framework might be quite formal, as may be expected when large corporations conduct experiments, governed by contracts and explicit written obligations. When individual inventors or small

business units are involved, however, less formal and seemingly casual experiments can be expected. Such less formal experiments may be deemed legally sufficient to avoid the public use bar, but only if they demonstrate the presence of the same basic elements that are required to validate any experimental program. Our case law sets out these elements. *See TP Laboratories*, 724 F.2d at 971-72, 220 USPQ at 582; *Baker Oil Tools*, 828 F.2d at 1564, 4 USPQ2d at 1214. The question framed on this appeal is whether Lough's alleged experiments lacked enough of these required indicia so that his efforts cannot, as a matter of law, be recognized as experimental.

Here, Lough either admits or does not dispute the following facts. In the spring of 1986, he noted that the upper seal assembly in Brunswick inboard/outboard boats was failing due to galvanic corrosion between the annular seal and the aperture provided for the upper seal assembly in the aluminum bell housing. He solved this problem by isolating the annular seal from the aluminum bell housing in order to prevent corrosion. After some trial and error, Lough made six prototypes. He installed the first prototype in his own boat. Lough testified at trial that after the first prototype had been in his boat for three months and he determined that it worked, he provided the other prototypes to friends and acquaintances in order to find out if the upper seal assemblies would work as well in their boats as it had worked in his boat. Lough installed one prototype in the boat of his friend, Tom Nikla. A prototype was also installed in the boat of Jim Yow, co-owner of the dealership where Lough worked. Lough installed a fourth prototype in one of the dealership's customers who had considerable problems with

corrosion in his stern drive unit. The final two prototypes were given to friends who were employed at a different marina in Florida.These friends installed one prototype in the boat of Mark Liberman, a local charter guide. They installed the other prototype in a demonstration boat at their marina. Subsequently, this boat was sold. Neither Lough nor his friends knew what happened with either the prototype or the demonstration boat after the boat was sold. After providing the five prototypes to these third parties, Lough neither asked for nor received any comments concerning the operability of these prototypes.

Accepting that the jury found these facts, which either were undisputed or were as asserted by Lough, it cannot be reasonably disputed that Lough's use of the invention was not "experimental" so as to negate a conclusion of public use. It is true that Lough did not receive any compensation for the use of the prototypes. He did not place the seal assembly on sale before applying for a patent. Lough's lack of commercialization, however, is not dispositive of the public use question in view of his failure to present objective evidence of experimentation. Lough kept no records of the alleged testing. *See Paragon Podiatry Lab., Inc. v. KLM Lab., Inc.*, 984 F.2d 1182, 1188, 25 USPQ2d 1561, 1566 (Fed. Cir. 1993) ("[W]hen further combined with other factors, such as the inventor's failure to keep test records, the entire surrounding circumstances point to only one possible legal conclusion – that the sales [of the patented device] were commercial in nature and fall within the statutory bar."); *Sinskey*, 982 F.2d at 499, 25 USPQ2d at 1294 (relying on patentee's failure to introduce medical records that would likely indicate that use of medical device was experimental).

Nor did he inspect the seal assemblies after they had been installed by other mechanics. *See In re Hamilton*, 882 F.2d 1576, 1581-83, 11 USPQ2d 1890, 1894-96 (Fed. Cir. 1989) (lack of involvement by inventor in alleged testing is an important factor in determining that use was not experimental). He provided the seal assemblies to friends and acquaintances, but without any provision for follow-up involvement by him in assessment of the events occurring during the alleged experiments, and at least one seal was installed in a boat that was later sold to strangers. Thus, Lough did not maintain any supervision and control over the seals during the alleged testing. *See Beachcombers v. WildeWood Creative Prods.*, 31 F.3d 1154, 1160, 31 USPQ2d 1653, 1657-58 (Fed. Cir. 1994) (sustaining jury's finding of public use based on inventor's failure to control use of the patented device and the future dissemination of information about it); *Hamilton*, 882 F.2d at 1580, 11 USPQ2d at 1893 ("The Supreme Court [in *City of Elizabeth*] has indicated that for an assertion of experimental use to have merit, it must be clear that the inventor kept control over his invention in the course of its testing.").

Lough argues that other evidence supports a finding that his uses were experimental, including his own testimony that the prototypes were installed for experimental purposes and the fact that the prototypes were used in such a manner that they were unlikely to be seen by the public. However, "the expression by an inventor of his subjective intent to experiment, particularly after institution of litigation, is generally of minimal value." *TP Laboratories*, 724 F.2d at 972, 220 USPQ at 583. In addition, the fact that the prototypes were unlikely to be seen by the

public does not support Lough's position. As the Supreme Court stated in *Egbert v. Lippmann:*

> [S]ome inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye. An invention may consist of a lever or spring, hidden in the running gear of a watch, or of a rachet, shaft, or cog-wheel covered from view in the recesses of a machine for spinning or weaving. Nevertheless, if its inventor sells a machine of which his invention forms a part, and allows it to be used without restriction of any kind, the use is a public one.

104 U.S. at 336. Moreover, those to whom he gave the prototypes constituted "the public," in the absence of meaningful evidence of experimentation. Thus, we find Lough's reliance on this additional evidence to be of minimal value when viewed in light of the totality of the other circumstances surrounding the alleged experimentation.

We therefore hold that the jury had no legal basis to conclude that the uses of Lough's prototypes were experimental and that the prototypes were not in public use prior to the critical date. Our holding is consistent with the policy underlying the experimental use negation, that of providing an inventor time to determine if the invention is suitable for its intended purpose, *i.e.*, to reduce the invention to practice. Lough's activities clearly were not consistent with that policy. We do not dispute that it may have been desirable in this case for Lough to have had his prototypes installed by mechanics of various levels of skill in boats that were exposed to different conditions. Moreover, Lough was free to test his invention in boats of

friends and acquaintances to further verify that his invention worked for its intended purpose; however, Lough was required to maintain some degree of control and feedback over those uses of the prototypes if those tests were to negate public use. *See Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1266, 229 USPQ 805, 808 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1030 (1987). Lough's failure to monitor the use of his prototypes by his acquaintances, in addition to the lack of records or reports from those acquaintances concerning the operability of the devices, compel the conclusion that, as a matter of law, he did not engage in experimental use. Lough in effect provided the prototype seal assemblies to members of the public for their free and unrestricted use. The law does not waive statutory requirements for inventors of lesser sophistication. When one distributes his invention to members of the public under circumstances that evidence a near total disregard for supervision and control concerning its use, the absence of these minimal indicia of experimentation require a conclusion that the invention was in public use.

We conclude that the jury's determination that Lough's use of the invention was experimental so as to defeat the assertion of public use was incorrect as a matter of law. The court thus erred in denying Brunswick's JMOL motion on the validity of claims 1-4 of the '775 patent under § 102(b).[5]

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[5] Each claim of the patent must be considered individually when evaluating a public use bar. However, Lough did not argue lack of public use on a claim-by-claim basis at trial. Nor does he do so on appeal. Moreover, section 102(b) may create a

Brunswick also challenges the district court's failure to grant JMOL or a new trial on the issues of noninfringement, obviousness, and damages. Our holding that the patent is invalid under § 102(b), as a practical matter, eliminates the need to consider these matters. Thus, we will not address them. We are of course mindful of the Supreme Court's decision in *Cardinal Chemical Co. v. Morton International, Inc.*, 508 U.S. 83, 26 USPQ2d 1721 (1993). In *Cardinal*, the Court rejected our previous practice of vacating invalidity judgments following a determination of noninfringement. 508 U.S. at 102-03, 26 USPQ2d at 1730. In doing so, the Court emphasized the importance to the public of resolving questions of patent validity and the need to prevent parties from having to relitigate patent validity. *Id.* at 99-101, 26 USPQ2d at 1729. Here, however, we have determined that the patent is invalid. We are not reviving a patent twice previously held invalid, as in *Cardinal*. Invalidity is a complete defense to infringement and, assuming the Supreme Court does not reverse or vacate our invalidity holding, a statistically unlikely event, our decision resolves all issues that are meaningful in this case. No further public interest is served by our resolving an infringement question after a determination that the patent is invalid. We therefore

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bar to patentability either alone, if the device used in public is an anticipation of the later claimed invention or, in conjunction with 35 U.S.C. § 103, if the differences between the claimed invention and the device used would have been obvious to one skilled in the art. *See LaBounty Mfg., Inc. v. United States Int'l Trade Comm'n*, 958 F.2d 1066, 1071, 22 USPQ2d 1025, 1028 (Fed. Cir. 1992). Thus our holding with regard to the public use of the invention applies equally to all of the claims of the '775 patent.

decline to consider the issue of infringement as well as that of obviousness.

CONCLUSION

The district court's denial of Brunswick's motion for JMOL on the ground of invalidity is reversed. The award of damages is accordingly vacated.

COSTS

No costs.

REVERSED-IN-PART AND VACATED-IN-PART

United States Court of Appeals for the Federal Circuit

95-1266,-1302,-1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION, d/b/a MERCURY MARINE,

Defendant-Appellant.

PLAGER, *Circuit Judge*, dissenting.

I respectfully dissent. In my view, the panel majority confuses its role as law-giver and law-reviewer with the role of fact-weigher and fact-decider. The majority and I agree that the issue is not whether the trial court applied the wrong law (it did not), or whether the jury was wrongly instructed (it was not). As the panel majority correctly notes, the issue is whether, on the totality of the circumstances, Mr. Lough was engaged in "a bona fide effort to bring his invention to perfection, or to ascertain whether it will answer the purpose intended," *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126, 137 (1877), or whether he was engaged in selling or, on the facts of this case oddly enough for a working mechanic, giving away his invention to members of the public.

This is not a contest between Evinrude (Outboard Marine Corporation) and Mercury Marine (Brunswick), the two big competitors in this field, to see who can market a better engine. If it were, we could expect the combination of engineering and legal staffs on each side

to be punctilious about observing the niceties of our prior opinions on how to conduct experiments so as to avoid any possible running afoul of the public use bar. No, this is a home-made improvement by a man with only a high school education who worked on boats and boat engines, including his own, where he kept encountering the problem with these shaft seals that Mercury Marine had failed to solve. He solved it by trial and error, with an ingenious bushing of his own design, and, on his grandfather's metal lathe, after several tries, fashioned a half-dozen prototype seals that looked like they might do the job.

He put one in his own boat, one in the boat of a close friend, one in the boat of the co-owner of the marine repair shop where he worked, and later put one in the boat of a customer of the shop who was having considerable problems with his stern drive because of the seal difficulty. He gave two to mechanic friends at another marina so they could put them in boats having the same troublesome seal problem, with the understanding they would be used to test the seals in different equipment.

Of course it would have been better for all concerned (except perhaps for Mercury Marine) if Mr. Lough had read our prior opinions before he became an inventor. Then he might have kept detailed lab notes setting out the problem and the possible solutions, and he wisely would have obtained written confidentiality agreements from those allowed to see or use his prototypes. Had he studied our cases first, he no doubt would have developed a detailed questionnaire for the persons to whom he provided the seals, and he would have insisted on periodic written reports. In other words, he would have put in the set of tight controls the majority would have

wanted. Instead, he did what seemed appropriate in the setting in which he worked: he waited to hear from his test cases what problems might emerge, and, hearing none, at least none that convinced him he was on the wrong track, he accepted some friendly advice and proceeded to patent his invention.

Yes, he failed to conduct his testing, his experiments, with the careful attention we lawyers, with our clean and dry hands, have come to prefer. But, under all the facts and circumstances, it is more likely than not that he was testing and perfecting his device, rather than simply making it available gratis to members of the general public for what the law calls "public use." The most that can be said for the majority view is that this is a close question under the totality of circumstances. The ultimate question of what is public use under 35 U.S.C. § 102(b) may be a question of law, but in a given case in which the issue is whether *in fact* the challenged use was experimental (a complete answer to an infringer's defense based on a § 102(b) violation), the issue involves a blend of law and fact. This issue, unlike claim construction, is one in which a jury fully participates. Thus the question before us is not whether, on the facts, we are persuaded Lough retained all the control a well-designed test of the seals would have afforded, but whether a reasonable jury, on all the evidence before it, could have arrived at the conclusion it did. *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1577, 35 USPQ2d 1840, 1845 (Fed. Cir. 1995) (finding a grant of JNOV improper because "a reasonable jury could have found, applying the correct law, that there was not a public use bar under § 102(b)"). The jury chose to accept Lough's view of the events, and

under that view there was more than enough evidence to support a jury finding that he was testing and perfecting his invention during much of the period leading up to the time he applied for his patent.[1] As we said in *Manville Sales Corp. v. Paramount Systems, Inc.*, 917 F.2d 544, 551, 16 USPQ2d 1587, 1592 (Fed. Cir. 1990): "When durability in an outdoor environment is inherent to the purpose of an invention, then further testing to determine the invention's ability to serve that purpose will not subject the invention to a section 102(b) bar." (citing *City of Elizabeth*, 97 U.S. at 133-34).

Many of the cases cited by the majority in support of their position are cases in which the inventor made a sale or an offer to sell the product prior to the critical date. *See, e.g., RCA Corp. v. Data General Corp.*, 887 F.2d 1056, 12 USPQ2d 1449 (Fed. Cir. 1989); *Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 25 USPQ2d 1290 (Fed. Cir. 1992), *cert. denied*, 508 U.S. 912 (1993); *Paragon Podiatry Lab., Inc., v. KLM Lab., Inc.*, 984 F.2d 1182, 25 USPQ2d 1561 (Fed. Cir. 1993); *In re Hamilton*, 882 F.2d 1576, 11 USPQ2d 1890 (Fed. Cir. 1989). The record in this case is undisputed that Lough made no sales of his invention until after his patent application was filed. Nor was this simply market testing, rather than product testing, as in *In re*

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[1] The law of this circuit is unequivocal that a "party attacking validity has the burden of proving facts supporting a conclusion of invalidity by clear and convincing evidence." *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 1423, 8 USPQ2d 1323, 1327 (Fed. Cir. 1988). Whatever the shifting of the burden of production of evidence at trial may have occurred, the ultimate burden remains with the attacker. The jury verdict leaves no question that Mercury Marine failed to carry its burden.

Smith, 714 F.2d 1127, 218 USPQ 976 (Fed. Cir. 1983); and in any event, that was part of the issue presented to the jury.

There is no dearth of cases in this court in which inventors tested their products in various ways before various audiences, and in which we have held that such testing, when it made sense in light of the circumstances, did not constitute public use under section 102(b). *See, e.g., Tone Bros. v. Sysco Corp.*, 28 F.3d 1192, 31 USPQ2d 1321 (Fed. Cir. 1994) (students asked to test functional features of spice containers prior to the critical date; summary judgment of invalidity reversed), *cert. denied*, 115 S. Ct. 1356 (1995); *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 220 USPQ 577 (Fed. Cir.) (orthodontic devices tested on patients prior to critical date; held not invalid even though a fee paid by the patients), *cert. denied*, 469 U.S. 826 (1984); *Manville Sales Corp.*, 917 F.2d 544, 16 USPQ2d 1587 (testing of streetlight, conditionally approved for sale, at outdoor site held experimental); *see also Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986) (inventor of puzzle showed it to a few close colleagues, and allowed one person to use it, prior to the critical date; held not invalid.), *cert. denied*, 479 U.S. 1030 (1987).

Under our standard of review, the jury's decision to accept Lough's version of the case is not properly subject to reversal. The trial court correctly denied Brunswick's JMOL motion, and this court should affirm that denial.

The majority, by unilaterally invalidating the patent on the public use issue, [illegible]esses that it thus avoids the knotty problem of how [illegible]eal with the infringement

question, especially infringement under the doctrine of equivalents. Although I share my colleagues' unease at addressing this question before we know the Supreme Court's disposition of *Hilton Davis*, and am in general sympathy with the views regarding the doctrine of equivalents expressed in the additional remarks, I cannot acquiesce in avoiding the question on the grounds offered here. I believe it is improper and unjust to deny Lough his victory at trial on the question of invalidity under section 102(b), a question properly put to and decided by the jury. (Whether his victory can be sustained on the issue of infringement is not here decided, and I offer no opinion on that question.)

United States Court of Appeals for the Federal Circuit

95-1266,-1302,-1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION, d/b/a MERCURY MARINE,

Defendant-Appellant.

Lourie, Circuit Judge, additional remarks.

There is another reason why we would exercise our discretion to avoid deciding what appears to be an unnecessary issue of infringement, even though we recognize the value of a complete review of a trial court's decision by an appellate court that is not the court of last resort. That is the current interim uncertainty concerning certain aspects of the law on infringement. The question of infringement in this case was decided by the jury on the basis of both literal infringement and infringement under the doctrine of equivalents. Were we to face these issues, we might well reverse the judgment on the issue of literal infringement on the ground that the upper portion of the Brunswick upper seal assembly does not supportively receive the upper end of the gear shift shaft, an express limitation of the claims. The question of infringement by equivalence would then become critical. Jury instruction under the doctrine of equivalents, however, was rather limited and preceded our recent in banc decision in *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 35 USPQ2d 1641 (Fed. Cir. 1995) (in banc), *cert.*

granted, 116 S. Ct. 1014 (1996). Review of the equivalence finding would therefore be problematical.

The Supreme Court has granted certiorari in *Hilton Davis* and will hear the case in its next term. The Supreme Court has also recently unanimously affirmed our in banc decision in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir. 1995) (in banc), in which we held that construing the scope of a claim is a matter for the court, rather than the jury. *See Markman v. Westview Instruments, Inc.*, 116 S. Ct. 1384, 38 USPQ2d 1461 (1996). The Court based its decision in part on a belief that "[t]he construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis. . . . The judge, from his training and discipline, is . . . more likely to be right, in performing such a duty, than a jury can be expected to be." *Id.* at 1395 (citing *Parker v. Hulme*, 18 F. Cas. 1138 (No. 10,740) (CC ED Pa. 1849)).

Thus, it is entirely conceivable that the Court, consistent with its decision in *Markman*, could hold that determination of the scope of a claim beyond its literal language for purposes of determining infringement under the doctrine of equivalents is also a matter for the judge, not the jury. It could do so on the basis that interpreting a claim arguably contrary to the statutory requirement for precision set forth in 35 U.S.C. § 112 requires the discernment of a judge, tantamount to an equitable reformation of the patent. Deciding the infringement phase of this appeal, when it is not clearly necessary, would thus not be prudent. Such would not be the case, of course, were the infringement question to be dispositive of the appeal, but, as indicated above, it is not here.

95-1266, -1302, -1314

STEVEN G. LOUGH,

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BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

ERRATUM

The following change has been made to the opinion of June 12, 1996:

Page 15, lines 20-21, change "Lough neither asked for nor received" to – Lough did not ask for –. (App. 16)

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

95-1266, -1302, -1314

LOUGH V BRUNSWICK CORP

ORDER

(Filed Jan. 2, 1997)

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLEE, and a response thereto having been invited by the court and filed by the APPELLANT, and the petition for rehearing having been referred to and acted upon by the panel that heard the appeal, and, thereafter, the suggestion for rehearing in banc and response having been referred to the judges authorized to request a poll whether to rehear the appeal in banc, and a poll having been requested, taken, and failed, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED, and it is further

ORDERED that the suggestion for rehearing in banc be, and the same hereby is, DECLINED.

Circuit Judge LOURIE concurs in a separate opinion.

Circuit Judge NEWMAN, with whom Circuit Judge RADER joins, dissents in a separate opinion.

Circuit Judge PLAGER, with whom Circuit Judge RADER joins, dissents in a separate opinion.

Circuit Judge MICHEL dissents in a separate opinion.

Circuit Judge RADER dissents in a separate opinion.

The mandate of the court will issue on January 9, 1997.

FOR THE COURT,

JAN 2 1997
Date

/s/ Jan Horbaly
Jan Horbaly
CLERK

cc: George H. Solveson, Esq.
Arnold B. Silverman, Esq.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

LOURIE, *Circuit Judge*, concurring in the Order declining the suggestion for rehearing in banc.

I concur in the decision of the court not to take this case in banc. There is nothing wrong with the panel's decision or its statements of law. The latter are not new.

The dissents from the decision not to take the case in banc argue that public use is a question of fact, not law, and that the panel erred in failing to defer to the jury's decision on public use. They similarly consider experimental use to be a question of fact subject to deference to the jury. I disagree. However, in the context of a negative vote to take a case in banc, I will not attempt to counter-analyze all the case law cited by the dissents. Suffice it to say that I do not agree with their interpretations. A few brief comments are nonetheless appropriate.

We have for some time considered the question of public use under 35 U.S.C. § 102(b) to be a question of law. Moreover, whether or not all the cases explicitly state that it is a question of law, they mostly treat the issue as one of law, notwithstanding occasional loose language in some opinions, including some from courts to which we

are not subordinate. The reason it is a question of law is that it is a statutory term that requires the exercise of judgment, taking into account a variety of facts in light of the policies behind the statute. Public use is not a matter of simply determining whether, *e.g.*, a particular event occurred more than one year from the filing date of an application, a matter capable of precise determination. It encompasses underlying facts such as whether the action in question was undertaken for commercial purposes, whether members of the public viewed the invention without any bond of confidentiality to the inventor, whether the nature of the invention was discernible by observation, whether any precautions were taken to exclude outsiders, etc. These facts, determinable by a fact-finder and of course subject to deference, must be weighed in making a judgment whether they amount to the type of action that the statute was intended by Congress to prohibit. Frequent references in the case law to issues of fact relate to these underlying facts rather than establishing that the statutory question of public use is one of fact.

Experimental use is not of course a term of the statute. It is, however, judge-made and accordingly appropriately decided by a judge without deference to a jury. It is often called an exception to a public use bar, but it is best characterized as a negation of a public use. It is also based on a variety of subordinate facts, once again determinable by a jury and subject to appropriate deference. Being a negation of public use and hence on the same conceptual level as public use, and based on the totality of subordinate facts and on policy considerations, it is also properly a question of law. The cases have treated it

as such, if not explicitly stating as much. The subordinate fact questions include the purpose of the alleged experiment, whether supervision and control of the so-called experiments was maintained by the inventor or someone acting on the inventor's behalf, whether records were kept, and whether the experimenter, if not the inventor, was obligated to and did report to the inventor the results of the experiments. Whether a reduction to practice had already occurred is also a factor, perhaps a conclusive one, because that which has been shown to work for its intended purpose (the test for a reduction to practice) arguably isn't entitled to be called experimentation sufficient to negate what would otherwise be a public use. In this case, the indicia of supervision and control were so lacking that, as a matter of law, there could be no proper holding of an experimental use. And all of Lough's purported experiments occurred after the date on which he conceded that he reduced his invention to practice.

The principal Supreme Court case on public and experimental use is *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877). In that case the Court discussed a variety of considerations (underlying facts) it considered relevant to the question. It stated numerous times that the question was whether they all added up to an experimental use rather than a public use *within the meaning of the statute* or *within the meaning of the law.* Clearly, it considered the ultimate question to be one of law. Earlier, the Court in *Pennock v. Dialogue*, 27 U.S. 1, 15 (1829), while noting questions of fact, stated: "But when all the facts are given, there does not seem any reason why the court may not state the legal conclusion deducible from them."

With respect to both public use and experimental use, courts have been accustomed to referring to their determinations as involving "the totality of circumstances," a phrase that some have objected to as being indefinite. What this phrase conveys is simply the process by which judges decide legal issues based on various facts that have been determined, utilizing the tools that judges always use, *viz.*, the language of the statute, the purposes of the statute as indicated by legislative history, etc. Cases depend on facts, but they involve legal judgments.

The fact that members of the public may not know for certain what a judge or panel of judges may decide on a particular matter is hardly a criticism of the system of assigning fact-law labels to issues for decision. Juries are at least as difficult to predict as judges or panels of judges. Prediction is a skill that lawyers are supposed to possess, to be able to estimate, based on case law, the policies of the law, and the facts in a given case, whether those facts come within the requirements of the law. I suspect that the multiplicity of cases that arise on these issues is not due to uncertain standards, but to the fact that in a competitive economy parties press their positions until a high court tells them they have finally lost. It is due at least as much to the unpredictability of juries as to uncertain legal standards applied by judges.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

NEWMAN, *Circuit Judge*, with whom *Circuit Judge* RADER joins, dissenting from the Order declining the suggestion for rehearing *en banc*.

In converting the factual question of experimental purpose into a matter of law, our court has cut another notch in the removal of patent issues from the trier of fact. The appellate/trial relationship is distorted in the panel's treatment of the factual question of whether this use of Mr. Lough's engine seal assembly was primarily experimental and therefore not a "public use" in terms of § 102(b). The panel's treatment is squarely in conflict with precedent. Thus I must dissent, respectfully, from the court's decision not to consider this issue *en banc*.

The Appellate/Trial Relationship

As discussed by my colleagues in dissent, the issue of experimental use is a question of fact, not a ruling of law. The trial process is the mechanism, in our system of justice, for finding facts, determining credibility, weighing the evidence, balancing the circumstances, and ascertaining the truth. The trier of fact, applying the rules of

statute and the experience of precedent to the facts of the particular case, must exercise judgment in light of the probative value of the evidence, informed by the complex of societal and policy considerations that are the foundation of our system of law. The trial court is not a mere compiler of data; it is a tribunal of justice.

The role of the appellate court is to correct errors at trial that prejudiced the outcome, not to make *de novo* fact-based rulings as if there had been no decision at trial. When the law has been correctly stated and the evidence has been weighed to plausible effect, such that the conclusion is not clearly erroneous (upon bench trial) or is not without substantial supporting evidence (upon jury trial), the appellate court must give appropriate deference to the judgment of the trier of fact. The Federal Rules and judicial tradition require this appellate role. *See Anderson v. City of Bessemer City*, 470 U.S. 564, 573-74 (1985) ("If the district court's account of the evidence is plausible in light of the record viewed in its entirety, the court of appeals may not reverse it even though convinced that had it been sitting as the trier of fact, it would have weighed the evidence differently."); Fed. R. Civ. P. 52(a).

The trial courts are not divested of their primary role in resolving disputes, whenever appellate review is sought. The issue raised by this *en banc* petition is not whether we, as the appellate court, have authority to review the law, the facts, and the application of the law to the facts of this case. Of course we do. The issue is whether we have authority to reweigh and reevaluate and rebalance the evidence, with no deference to the procedures and judgment at trial. That is an improper appellate role. In the resolution of disputes the trial is the

"main event," not a "tryout on the road," in the words of *Wainwright v. Sykes*, 433 U.S. 72, 90 (1977).

Whether the installation of Mr. Lough's six handmade seal assemblies was primarily for experimental purpose, upon the entirety of the circumstances, was found by the trier of fact. Review of that finding is not *de novo*, as the panel majority holds. This court's arrogation of authority to decide this question *de novo* diminishes the trial process and elevates the appellate role. As a commentator has explained:

> The classification of ultimate facts as questions of law amounts to a manipulation of the law-fact doctrine to take questions from the jury or to subject the trial level's resolution of questions to free appellate review.

Martin B. Louis, *Allocating Adjudicative Decision Making Authority Between the Trial and Appellate Levels: A Unified View of the Scope of Review, the Judge/Jury Question, and Procedural Discretion*, 64 N.C. L. Rev. 993, 1028 (1986). Whether experimental use is viewed as an historical fact or an ultimate fact, it is not a matter of law. Its removal from the jury was an improper "manipulation of the law-fact doctrine."

Public Use and Experimental Use

The patent statute provides that an inventor is barred from the patent system if the invention has been in public use for more than a year before applying for the patent:

> **35 U.S.C. § 102 Conditions for patentability; novelty and loss of right to patent**

> A person shall be entitled to a patent unless –
>
> (b) the invention was . . . in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or. . . .

This provision has been in the patent statute since 1839, varying only in whether the period during which the bar accrued was one or two years.

The statute states the law. The boundary between law and fact was explained in simple terms by Professor Morris: the law is the general principle, stated in advance, while the fact is a case-specific inquiry based on evidence. Clarence Morris, *Law and Fact*, 55 Harv. L. Rev. 1303, 1304 (1942). This usage is illustrated in *City of Elizabeth v. Pavement Co.*, 97 U.S. 126 (1877), wherein the Supreme Court discussed the relationship between experimentation and public use, stated certain additional principles of law, and discussed their application in that case. Thus, the Court stated that:

> The use of an invention by the inventor himself, or of any other person under his direction, by way of experiment, and in order to bring the invention to perfection, has never been regarded as such a [public] use.

97 U.S. at 134. This is a principle of law, of general applicability. The Court also stated a generally applicable principle of procedural law, as follows:

> To determine this question, it is necessary to examine the circumstances under which this pavement was put down, and the object and purpose that Nicholson had in view.

97 U.S. at 133. The "law" is these statements of principles. Applying these principles to the facts in *City of Elizabeth* the Court found, on examining the circumstances, that the inventor Nicholson's purpose was primarily experimental. That finding was not a matter of law, but a case-specific finding upon weighing and balancing and evaluating all of the circumstances.

Both before and after *City of Elizabeth* numerous cases have involved questions of experimental and public use. The relevant criteria have been summarized in several opinions of this court. *E.g., Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1564, 4 USPQ2d 1210, 1214 (Fed. Cir. 1987); *TP Laboratories, Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 971, 220 USPQ 577, 582 (Fed. Cir.), *cert. denied*, 469 U.S. 826 (1984). These criteria include the necessity for the testing or evaluation, the extent of the use and by whom, the degree of openness to the public during evaluation, whether the inventor monitored the use and kept a laboratory notebook or other experimental records, whether there was payment for the use, and whether there was a confidentiality agreement. The ultimate question is whether the primary purpose of the activity was experimental. *See Allied Colloids, Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1576, 1577, 35 USPQ2d 1840, 1844 (Fed. Cir. 1995) ("The dispositive consideration is whether the inventor was in fact testing the invention."); *TP Laboratories*, 724 F.2d at 972, 220 USPQ at 582 ("[I]f a use is experimental, even though not secret, 'public use' is negated.")

The trier of fact must weigh and balance all of the evidence in order to find the primary purpose of the

activity. Although scholars of trial/appellate relationships have drawn elegant distinctions in defining fact and law, this determination of experimental purpose is surely not a matter of law. In *Armour & Co. v. Wilson & Co.*, 274 F.2d 143, 155, 124 USPQ 115, 124-25 (7th Cir. 1960) the court stated:

> We have come to speak of questions of 'facts,' 'primary facts,' 'subsidiary facts,' 'evidentiary facts,' 'ultimate facts,' 'physical facts,' 'documentary facts,' 'oral evidence,' 'inferences,' 'reasonable inferences,' 'findings of fact,' 'conclusions,' 'conclusions of law,' 'questions of fact,' 'questions of law,' 'mixed questions of law and fact,' 'correct criteria of law,' and so on *ad infinitum*. The simple answer is that we are all too frequently dealing in semantics, and our choice of words does not always reflect the magic we would prefer to ascribe to them.

Indeed, let us not be misled by semantics. The "magic" of *de novo* appellate determination of experimental use serves not to reflect a nuanced definition of law and fact, but to affect trial/appellate authority and, in the case at bar, the role of the jury.

The Case of Lough v. Brunswick Corporation

Mr. Lough, a workman at a Florida marina, observed that a commercial marine engine had a deficient upper seal assembly. He designed an improved seal assembly, worked it on his grandfather's lathe, and installed it in his own boat. He made five additional prototypes and persuaded five other persons, all personal acquaintances in the boating community, to install these handmade

assemblies. Mr. Lough testified that he needed to know whether his seal assembly would hold up during a practical period of marine use, and that he sought more extensive and varied use than in his own boat:

> Well, Jack Wherry's boat constantly sat in the water. My boat, I take – it was on a trailer. . . .
>
> And I explained to Jack what I want to do, I wanted to put a seal in his boat for testing purposes to see if it would last, because his boat sat in the water all the time. And when it comes back to the marina, then I could look at it and I could test – I could, you know, make sure everything in it was just fine.

App. at A000230.

Mr. Lough testified that he wanted to be sure that his seal would last for at least a year, the typical warranty period for boats:

> I figured if they lasted a year and got them through the warranty period – the Mercruiser seal wouldn't even get them hardly through the warranty period on a lot of boats.
>
> So, I figured if this thing here that I made lasted them at least a year, a boat dealership could put these in there and at least tell the man he's going to fix his boat, you know, and it's going to last for at least a year.

App. at A000229.

Mr. Lough testified about the free provision of the handmade seal after he persuaded his friends to try it out, App. at A000228-29 ("Q: Did you receive any money or anything for any of these five seals? A: No, I did

not."), and his eventual conclusion that his seal worked sufficiently better, with respect to the life of the then-used marine engine seals, as to have commercial potential. He testified about when he reached this conclusion, and about his decision to enter into the patent system:

> Q: All right. What prompted you to patent this seal?
>
> A: I guess all the friends at the marina; everybody told me that, you know, you got a good thing there, and why don't you take it to a patent attorney and have him patent the thing for you so . . .
>
> Q: All right. Did you take it to a patent attorney?
>
> A: I did.

App. at A000229-30.

Witnesses at the trial included some of the persons who offered their boats for the evaluation. Thomas Nickla testified about his understanding that this seal assembly was a new creation of Mr. Lough, App. at A000543 ("Q: Did there come a time when Mr. Lough told you that he had a new – he had made a new seal to correct this problem? A: Yeah, there was."), and that he agreed to its installation in his boat in view of the known deficiency in existing seals:

> Q: Did you or he, or the two of you, put a seal in your boat?
>
> A: Right. Both of us did one day.
>
> Q: And you're talking about now the 23 foot Wellcraft?

A: Right.

Q: All right, sir. What did you understand the purpose of putting that seal in your boat to be? Why did you all do it?

A: The reason I first understood was to fix the problem that MerCruiser had with that seal was – the aluminum was so corroded that the seal wouldn't stay in the housing.

Q: And why did Steve give you a seal to put in your boat?

A: Just to try it out.

App. at A000543. Other witnesses testified similarly that there was no payment for the seal, and that they knew it was a handmade prototype whose performance was being evaluated. Mr. Lough testified that after his patent application was filed he started a business to make the seals.

All of this evidence occupied many days of trial, with examination and cross-examination of the witnesses. The jury was correctly instructed to consider all of the circumstances and to determine whether the primary purpose of the use of the seal in this period was experimental, in which event, the jury was instructed, the use was not a public use under the law. The jury found, by special verdict, that none of "the seal assemblies distributed by Mr. Lough were in public use more than one year before the filing of his patent application."

The panel majority, redetermining the issue *de novo*, explains the factors that it found persuasive in deciding that the use was not primarily experimental: that one of the boats was sold without retrieving the seal, that Mr.

Lough did not keep written records, that he did not inspect the seal assemblies, and that he did not "maintain any supervision" over the seals during the testing. I am not in a position to evaluate and weigh these findings, some of which appear to be directly contrary to unchallenged testimony. Those who were present at the trial were surely better positioned to sort out the truth, weigh the evidence, and balance all of the circumstances.

The panel majority, in reaching a different balance than did the trier of fact, must have disbelieved the testimony that the purpose was to "try out" the seal assembly, and must have disbelieved the testimony describing the disassembly and inspection of the seals, for the majority explicitly finds that Mr. Lough "fail[ed] to monitor the use of his prototypes," 86 F.3d at 1122, 39 USPQ2d at 1106, and that he received no comments concerning their operability. *Id.* at 1116, 39 USPQ2d at 1102. Mr. Lough testified that he took pictures of the seal assembly in the boat of a customer of the marina where he worked, to show that the assembly was working properly:

> I was trying to show that there was no – they still had the red grease on the bell crank after about probably six to eight months of testing. And when we pulled the drive off, there still wasn't any water in it. . . .

James Yow, owner of the marina where Mr. Lough worked, testified about observations of the performance of Mr. Lough's seal in a tow boat at the marina:

> Q: How long was the seal in this particular boat?

A: Approximately four years.

Q: Did you ever have any problems with the seal?

A: No, sir. We pulled the boat out of the water about every three to six months, pulled the drive, greased the U-joints and stuff like that, and checked the seal and there was no water in the cavity.

It is hard to square this evidence with the panel majority's statements that Mr. Lough did not monitor the performance. The proper appellate analysis is not how a panel of this court would have believed the witnesses and weighed the evidence, but whether the evidence and credibility determinations that the trier of fact deemed probative of experimental purpose were supported by substantial evidence and within the scope of a reasonable jury verdict.

The need to exercise wisdom or judgment in considering the totality of the circumstances does not convert fact into law and remove the issue from the trier of fact. To the contrary, the exercise of wisdom and judgment when weighing and balancing the evidence is the role of the trier of fact. *See Best v. District of Columbia*, 291 U.S. 411, 415 (1934) ("Where uncertainty arises either from a conflict of testimony or because, the facts being undisputed, fair-minded men may honestly draw different conclusions from them, the question is not one of law but of fact to be settled by the jury.") While the appellate court has full authority to correct jury verdicts that are not supported by substantial evidence, such correction does

not permit ignoring the trial process. When the jury verdict is sustainable on the evidence, the appellate role is fulfilled.

Why Does It Matter?

If the Federal Circuit wants to make *de novo* determinations of factual matters, isn't this a good thing? Won't it add consistency to patent decisions by removing harried trial judges and sympathetic juries from another area of patent litigation? Is it not a force for stability if the Federal Circuit will decide all fact-driven questions *de novo?*

Indeed, when there are fewer decision-makers, consistency is more likely. However, the appellate court is not structured to find facts without recourse to the procedures of trial. On issues that require weighing and balancing several confluent fact-laden circumstances, how can we presume to reach a more just result than those who were present for days or weeks of testimony, with demonstrations, exhibits, cross-examination, and argument? The procedures of trial and the deference owed to the judgment grounded in these procedures are the fabric of our system of justice and the trial/appellate relationship.

Although appellate courts have on occasion departed from deferential review of findings of fact, such departures are rare and invoke important policy issues, as in questions of constitutional fact, *e.g., Bose Corp. v. Consumers Union of United States, Inc.*, 466 U.S. 485 (1984) (the issue of product disparagement required interpretation of the First Amendment) and most recently in the policy

considerations surrounding patent claim construction, established in *Markman v. Westview Instruments, Inc.*, 116 S. Ct. 1384, 1396, 38 USPQ2d 1461, 1470 (1996) ("[W]e see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.")

However, I doubt that the finding of experimental purpose in particular factual circumstances raises sufficiently grand portents to warrant further disruption of the trial/appellate relationship. Even if the removal of patent issues from the mainstream processes in which tradition (and wisdom) have placed them is the direction of the future, this piecemeal attrition of district court authority is pernicious. As Professor Louis remarked, *supra* at 1018, appellate action to treat fact as law "amounts to a direct judicial assault on the prerogatives of fact finders." If the majority of this court believes that the special niche of *de novo* review is nonetheless the correct place for the factual question of experimental use, then the court should speak with one voice so that trial courts and parties will know how to try and appeal the issue. Thus I must, respectfully, dissent from the court's refusal to take this issue *en banc* in order to establish a position on experimental use by which we will all be bound.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

PLAGER, *Circuit Judge*, with whom RADER, *Circuit Judge* joins, dissenting from the Order declining the suggestion for rehearing *in banc*.

In my dissent to the original panel opinion, I stated my view as to why the case was wrongly decided. I write now to state my reasons why, under the standards governing *in banc* review by this court, *see* Federal Circuit Rule 35(a), I would take this case *in banc* as appellee has suggested and clarify the legal standard by which we review cases such as this. In the course of doing so, we would also correct a gross miscarriage of justice.

An inventor is free to dedicate his invention to the public, in which case the Patent Act denies him the right subsequently to obtain a patent. There are several things an inventor may do that will have that effect; these are spelled out in section 102 of the Act. Included is to have "the invention . . . in public use . . . in this country, more than one year prior to the date of application for patent." 35 U.S.C. § 102(b) (1994).

The statute does not describe the circumstances under which an invention is to be considered "in public

use." Presumably the distinction is between a public and a private use. Courts recognize that private use, strictly defined, is not always possible because a certain amount of testing might be needed in order to perfect the invention, and such testing might have to be done in a setting which, in a strict sense, was public, that is, open to the public, or involving persons other than the inventor. The classic case is *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877), in which the Supreme Court found a new type of pavement material used on a public road for six years not to be "in public use" because the inventor's purpose was to test the material under actual use conditions.

City of Elizabeth and cases like it establish that when an accused infringer defends by claiming patent invalidity based on a § 102(b) public use bar, the patentee may counter with what has become known as the "experimental use" counter-defense. If the use of the invention is experimental, then the fact that the use resulted in public exposure does not invalidate the patent even if the exposure occurred more than one year before application for patent was made.

Whether an inventor intended to dedicate his invention to the public, or whether he was simply experimenting in order to perfect the invention before seeking his patent, is a question the answer to which is entirely fact driven. It involves intent, purpose, behavior, relationships actual and perceived, timing, the nature of the invention and its stage of development, the environment in which the testing was done, the experience and training of the inventor, and perhaps even the extent and

sophistication of advice readily available to the inventor as the invention matures.

When presented after-the-fact to a fact finder, the reconstruction of these historical events is the typical fodder of a trial, whether it be a jury trial or a bench trial. The subjective nature of the reconstruction process gives rise to notions like the virtual unreviewability of the fact finder's credibility determinations regarding the witnesses who testify, and the deference given to the factual findings and conclusions reached by the fact finder. If the fact finder is a jury, on appeal we ask whether a reasonable jury, on the evidence before it, could have arrived at the conclusion it did. If the matter is tried to a judge in a bench trial, we ask not whether as judges we all agree, but whether the trial judge's findings and conclusions were clearly erroneous.

It is sometimes suggested that there is a legally-significant difference between what are called "underlying facts," on the one hand, and other facts, including factual inferences and fact-based conclusions that presumably follow from the "underlying facts." If a fact falls in the first category, it is said, the fact findings are entitled to deference on appeal; if not, the fact findings get no such deference. This artificial bifurcation when dealing with what is a singular, fact-intensive, issue is I believe misplaced and misunderstood. The question of whether an inventor's activities placed the invention "in public use" cannot be separated from the factual underpinnings on which the answer stands. The factual conclusion – was he experimenting or was he intending to dedicate his invention to the public – does not derive from some independent basis of judgment or knowledge, but simply

from the total experience presented to the fact finder by the evidence in any given case.

Thus the concept of "totality of the circumstances" makes sense as a description of what fact finders wrestle with, and out of which emerges the "truth" of what happened and why. However, when invoked as an appellate standard of review, "totality of the circumstances" becomes simply a thin veil behind which appellate judges substitute their view of the facts for that of the fact finder. As such it has the propensity to be arbitrary, capricious, and an invitation to standardless decision making, the sort of thing that appellate courts are supposed to correct, not employ.

I fully support the rationale and result in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir. 1995) (in banc), *aff'd*, 116 S. Ct. 1384 (1996), in which, in the interest of an efficient and fair judicial system, we made a careful distinction between the role of judge and jury in the decisional process. However, our decision that the process of claim construction does not raise any factual issues appropriate for jury participation does not necessarily mean that other issues in patent law should be similarly treated. It depends on the nature of the issue. What is needed is functional analysis rather than *a priori* labeling as "legal issue" or "factual issue."

When the issue is reconstruction of historical events, the jury has long been deemed an appropriate fact finder. That the "public use" standard is found in statute is of no moment; it is not the source of the standard but its content that matters. Whether a use is experimental, and thus not a public use under the statute, is unlike the

question of the meaning of a patent claim. In claim construction, certain "facts" may be relevant – what might one skilled in the art have thought the claim language meant, and what precisely was the prior art against which this invention was played – but the ultimate judgment of the meaning of the claim derives from the skill and specialized knowledge of persons trained to make those judgments. The announced conclusion reached incorporates learning and, not infrequently, technological grasp and policy sensitivity, which are aided by distance from the immediacy of the trial stage.

In the issue before us, whether Mr. Lough's exposing of his invention to others was for the purpose of experimenting to perfect it or not, and thus in public use or not, the jury under proper instructions decided the fact-intensive question in his favor; the trial judge who was present during the proceedings approved what the jury did; and on appeal the record contains more than enough evidence by which we can conclude that a reasonable jury could have arrived at the conclusion this one did. For me, that is the end of the case.

Mr. Lough was not engaged in market testing or other commercial activity that, though perhaps falling short of the related on-sale bar, might be cause for concern. Nor did the panel offer a new, specific test for experimental use, such as requiring written confidentiality agreements, detailed reports contained in lab notes, or some other such requirement that Mr. Lough is deemed to have violated.[1] Absent that, the decision by

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[1] I do not intend by this to suggest that any single test can or should be imposed.

the panel majority to deny the jury any deference and thus arrogate to itself the fact finding has not only caused a gross miscarriage of justice to Mr. Lough, but profoundly contributes to the confusion and misunderstanding that had already begun to emerge around this question of what is, and who decides, experimental use.

As attested to by the several accompanying opinions also dissenting from the denial of *in banc* action, this court bears some responsibility for the state of affairs reflected by the decision in this case. I would take the case *in banc* for the purpose of clearly and unequivocally stating the rule that accords the fact finder proper deference when the issue is whether the experimental use counter-defense has been successfully established as a fact in face of an invalidity attack based on an alleged public use under section 102. Even under such a deferential standard, this court can effectively police the behavior of fact finders to ensure that the appropriate criteria, such as they are or may become, are properly applied. The outcomes in these cases may vary, but that ordinarily will be a natural consequence of the different facts in different cases, and should not be a matter of concern. Even if it were, other than in the exceptional case it is not a concern that an appellate court is equipped to address effectively. Our job is to provide uniformity of rule and process, not to impose our view of the facts on the constituted fact finder under the mistaken notion that an appellate court routinely can provide on a cold record some better understanding of what actually occurred.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

MICHEL, *Circuit Judge*, dissenting from the Order declining the suggestion for rehearing in banc.

I would grant the suggestion for rehearing in banc for three reasons not fully explicated in any of the separate opinions of my colleagues: (1) our case law regarding the application of the public use bar is too vague, and outcomes are too unpredictable, (2) dispute accordingly arises regarding whether public use and the reciprocal issue of experimental use are questions of fact or of law, and (3) dispute likewise arises regarding the proper standard of review by both the trial judge after a jury verdict and by this court. Unlike most of the other dissenting judges, however, I do not agree that public use should be reclassified as an issue of fact. Therefore, I write separately to explain that I would take the case in banc to reaffirm our classification of public use as ultimately an issue of law and also to identify certain indicia of "control," *e.g.*, record keeping, secrecy agreements, testing protocols, supervision of testing, reports to the inventor or restricted access to others, proof of which should be *required* before any potentially barring use in public can,

on grounds of experimentation, avoid the public use bar. Our declaring such a requirement in banc would make the potential for invalidation of particular patents more predictable.

I.

Certain of our cases describe the public use bar as turning on the "totality of the circumstances." *E.g., Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 549, 16 USPQ2d 1587, 1591 (Fed. Cir. 1990). So labeling the test may suggest that all relevant circumstances are merely factors to be weighed and that no fact can definitively determine whether a patent is invalid because of public use of the invention. Thus, lawyers and business people can only guess about the invalidity of a particular patent until a panel of our court has ruled. However, to say that many factors may be relevant is not to say that none can ever be controlling. For example, I believe existing case law, when properly read, suggests that control is such a requirement, *i.e.*, a use cannot be experimental if the inventor failed to maintain sufficient control over the invention and its testing. Indeed, that is what the panel seems to hold. *See Lough v. Brunswick Corp.*, 86 F.3d 1113, 1121 (Fed. Cir. 1996) ("Thus, Lough did not maintain any supervision and control over the seals during the alleged testing."). Requiring indicia of control guarantees both that the inventor was actually experimenting in an attempt to acquire information about whether the invention would work for its intended purpose and that the invention has been reasonably protected from disclosure to the relevant public so that competitors could not reasonably conclude it has been dedicated to the public.

Absent such control, there can be no realistic conclusion that the inventor was truly experimenting or that the competitors and the public were not mislead [sic]. Unfortunately, control as a prerequisite to experimentation may not seem absolutely required by the panel opinion and, in any event, the panel opinion lacks the full weight of an in banc court behind it. Therefore, I would rehear the appeal in banc.

While requiring control would improve predictability, redesignating public use as an issue of fact would not. My dissenting colleagues who favor so reclassifying the issue would increase unpredictability by granting greater deference to jury verdicts involving a conclusion of public use. Different juries could render different verdicts on the public use bar in the face of similar facts, and what a given jury would decide on particular facts could not be foretold. Consequently, reclassification would also encourage more litigation. Patent invalidity on public use grounds could not be determined on examination of known facts by mere lawyers, no matter how skillful, but would require the full time and expense of a jury trial, followed by post-trial motions and appeal, whenever the patentee seeks to assert his right to exclude others, such as through warning letters or licensing negotiations. Although de novo judicial redetermination of invalidity may be a burdensome and exacting task, I think it is better for the trial bench and our court to perform this task than to leave undisturbed an array of unpredictable and inconsistent jury verdicts.

Moreover, reclassifying the public use issue as one of fact might create confusion throughout our invalidity jurisprudence. If we so reclassify public use, would we

not, in order to be jurisprudentially consistent, likewise reclassify other legal invalidity grounds that we have said comprise both legal and factual issues, such as obviousness?

II.

In any event, I consider reclassifying the public use bar as an issue of fact to have been foreclosed by the Supreme Court's decision long ago in *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877). There, the Court distinguished between "use in public," judicially reviewable as fact, *id.* at 134 ("That the use of the pavement in question was public in one sense cannot be disputed."), and "public use," the statutory standard, reviewable as law, *Id.* at 136 ("The public had the incidental use of the pavement, it is true; but was the invention in public use, *within the meaning of the statute?*") (emphasis added). Our court since its inception has drawn the same distinction. While, if we conclude the issue is not foreclosed by *City of Elizabeth*, we are free to reverse our view, in a *stare decisis* system a court in banc should only upset long settled law in the face of a compelling change of circumstances. None is presented here.

III.

If our classification of public use as a question of law with underlying factual issues is to operate more successfully, as I believe it can, the court in banc must articulate how we and trial judges are to review jury verdicts on this and, by implication, other legal grounds of invalidity. To say only that such grounds of invalidity

are legal conclusions based on underlying facts is not to enlighten. Nor is it sufficient to say of the "underlying facts" that those that are historical warrant deferential review. Another important category of facts might be termed "legal facts." An example of such a legal fact is the question of control when considering asserted experimental use. I believe that on legal issues of invalidity, these "legal facts," too, deserve deferential review by judges. Indeed, in my view, only the ultimate legal conclusion of invalidity ever warrants free review by the trial judge following jury verdicts and by us on appeal. Accordingly, I believe judges at both levels, as well as patent lawyers and business people who could then make better predictions about patent validity, would all benefit if we were clearer about how judges are to decide these issues.

I believe the most difficult challenge is to distinguish between those cases in which the facts regarding public use, as duly found, could only support one result, and those in which the facts as duly found could support either result. In the latter class of cases, judges must redecide the issue based on the underlying facts as properly found by the jury, while in the former, I believe judges must leave undisturbed the jury's resolution of the ultimate issue as well as the underlying facts, so long as the underlying facts are supported by substantial evidence. Such a standard of review, although variable and hence complex, would not risk encroachment on the fact-finding, evidence-weighing function of the jury. Rather, it would guarantee deference to the jury's verdict in those cases where such deference is due, *i.e.*, where the facts dictate the result, while still allowing appropriate judicial

redetermination in circumstances that merit it, *i.e.*, where the facts as found do not dictate the result. Although evaluating the jury's fact-finding is often difficult in the face of a general verdict, the jury's proper role can be further protected by encouraging the use of special verdict forms or written interrogatories, *see* Fed. R. Civ. P. 49, thus leaving little doubt as to the jury's findings.

I had hoped that in this appeal our court in banc might have settled these questions regarding judicial review of jury verdicts on the public use bar, if not legal invalidity issues generically. That occasion is not to arise in the present appeal. I hope our court will soon be presented with such occasion in another appeal. Everyone affected by the patent system stands to gain.

UNITED STATES COURT OF APPEALS
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95-1266, -1302, -1314

STEVEN G. LOUGH,

Plaintiff-Appellee,

v.

BRUNSWICK CORPORATION,
d/b/a MERCURY MARINE,

Defendant-Appellant.

RADER, *Circuit Judge*, dissenting from Order declining the suggestion for *rehearing in banc*.

In *Lough v. Brunswick Corp.*, 86 F.3d 1113, 39 USPQ2d 1100 (Fed. Cir. 1996), a split panel of this court pronounced public use under 35 U.S.C. § 102(b) a question of law. *Id.* at 1120. Under this standard of review – a departure from Supreme Court and Federal Circuit law – the *Lough* court gave no deference to the trial jury's findings. Because I believe the *Lough* court lacks authority for this departure and complicates a quagmire of already confusing law on statutory bars, I must respectfully dissent from this court's decision to decline *in banc* rehearing.

No subject matter within the jurisdiction of this court of appeals prompts more outright scholarly criticism than this court's review of section 102(b) bars.[1] Moreover, if

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[1] *See, e.g.*, Thomas K. Landry, *Certainty and Discretion in Patent Law: The On Sale Bar, The Doctrine of Equivalents, and Judicial Power in the Federal Circuit*, 67 S. Cal. L. Rev. 1151 (1994); William C. Rooklidge & Stephen C. Jensen, *Common Sense, Simplicity and Experimental Use Negation of the Public Use and On*

this court presumes to extend plenary appellate review to the vague totality of circumstances test, this single sentence in title 35 can only produce more conflicting judgments. The unrestricted review of a wide-ranging "totality of circumstances" creates ample latitude for inconsistency. By inexplicably designating both public use and experimental use as questions of law, *Lough* threatens to multiply the chaos. Until the Federal Circuit restores the emphasis on factual inquiry set forth in the Supreme Court's standard of review, certainty and predictability – not to mention unwary inventors – will be the victims.

I.

Steven G. Lough is the most recent victim of the uncertainties of public use law. He won a unanimous jury verdict after an exhaustive seventeen-day trial. After a lengthy consideration of evidence, the jury decided that Lough did not publicly use his invention. Moreover, the trial judge who presided over the trial sustained the jury's verdict.

Lough invented an upper seal assembly to solve a corrosion problem in inboard/outboard motor boats – a solution that had escaped Brunswick for many years. After some trial and error with his grandfather's metal lathe, Lough made six usable prototypes in the spring of

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Sale Bars to Patentability, 29 J. Marshall L. Rev. 3 (1995); James A. Jorgensen, Comment, *Environmentally Dependent Inventions and the "On Sale" and "Public Use" Bars of 102(b): A Proffered Solution to a Statutory Dichotomy*, 49 U. Miami L. Rev. 185 (1994).

1986. He installed one prototype in his own boat. He placed a second prototype with a friend who installed it in his boat. He also installed prototypes in the tow boat at the marina where he worked and in the boat of a marina customer – both of which Lough regularly maintained. He gave the remaining prototypes to a friend who was employed at another marina in Sarasota, Florida. At no point did Lough charge for these prototypes or try to profit from his invention. Instead, Lough testified of his intent to perfect his invention through experimentation. He relied on his close relationship and association with the owners of the experimental boats to maintain the confidentiality of his invention and to monitor the performance of his prototypes.

On June 6, 1988, Lough filed a patent application entitled "Liquid Seal for Marine Stern Drive Gear Shift Shafts," which issued as U.S. Patent No. 4,848,775 on July 18, 1989. Lough sued Brunswick on June 12, 1993, for infringement of the '775 patent. The jury found no public use before the critical date of June 6, 1987.

On appeal to this court, Brunswick argued that Lough's prototypes were not experimental, but public uses. Lough relied on his evidence at trial that he had experimented with the prototypes to complete his invention. He stressed his refusal to seek any commercial gain from the prototypes. In fact, he did not place the seal assemblies on sale until after he filed his patent application. He also referred to his selection of a few friends and personal acquaintances to check the performance of the invention under different conditions.

This court, however, reversed the decision of the jury and the trial judge. Over a vigorous dissent, this court reweighed the record evidence on its own and, for the first time on appeal, found that Lough's six prototypes were a public use.

II.

The outcome of *Lough* turns on the standard of review applied by this court. With any level of proper deference to the fact-finding of those who heard seventeen days of evidence, this court must have affirmed. Both logic and Supreme Court rules call for that deference. Logic calls for deference because this court used the intensely factual "totality of circumstances" analysis. A factual analysis logically calls for the deferential review accorded questions of fact. Respect for the Supreme Court also calls for deference because our nation's highest court has repeatedly instructed that public use is predominantly a question of fact. *See, e.g., Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 16 (1829) and cases cited *infra* pp. 5-6.

Notwithstanding logic and binding precedent, the *Lough* court ventured to designate public use a question of law and extended that error by announcing that experimentation is also subject to unfettered review.[2] Logic

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[2] Despite the *Lough* court's presentation, experimental use is not a doctrine separate from public use with its own required indicia and standard of review. A fuller discussion of this *Lough* court error appears in part III infra. For now, this opinion examines *Lough* in its own erroneous context.

sometimes escapes even this distinguished court, but disregard of binding precedent, including the prior jurisprudence of this court and its predecessors, invites irreconcilable conflict and confusion.

Turning first to the standard of review for the public use and on sale bars of section 102(b), the Supreme Court has already settled this question. The Supreme Court's uniform treatment of statutory bars as predominantly questions of fact began when Justice Story articulated the justification for statutory bars in *Pennock v. Dialogue*. Justice Story, a consummate trial judge as well as Justice, took care to state from the outset the duties of judge and jury on statutory bar issues:

> The single question then is, whether the charge of the court was correct in point of law. It has not been, and indeed cannot be denied, that an inventor may abandon his invention, and surrender or dedicate it to the public. . . . *The question* which generally arises at trials, *is a question of fact, rather than of law;* whether the acts or acquiescence of the party furnish, in the given case, satisfactory proof of an abandonment, or dedication of the invention to the public. But when all the facts are given, there does not seem any reason why the court may not state the legal conclusion deducible from them. In this view of the matter, the only question would be, whether, upon general principles, the facts stated by the court would justify the conclusion.

Id. at 16 (emphasis added). This rule could not be clearer. The public use question which generally arises at trial is a question of fact, not of law.

Any provision of law invariably involves some interpretation of the legal meaning of the statutory terms. When a statute uses straightforward words, such as those in 35 U.S.C. section 102(b), however, that legal interpretation is minimal. Indeed with section 102(b), the definition of the statutory language occurred long ago at the Supreme Court. *See, e.g., Egbert v. Lippmann,* 104 U.S. 333 (1881) (a use need not be open and visible to be "public"). Throughout its lengthy experience with the public use and on sale bars, the Supreme Court has emphasized that these questions are overridingly factual. *E.g., Gayler v. Wilder,* 51 U.S. (10 How.) 477, 484 (1850) ("unless the plaintiff . . . had abandoned said improvement to the public, and suffered the same to go into public use before the application for said patent, *of which facts the jurors were the judges* ") (emphasis added); *Kendall v. Winsor,* 62 U.S. (21 How.) 322, 331 (1858) ("The real interest of an inventor with respect to an assertion or surrender of his rights . . . is *an inquiry or conclusion of fact, and peculiarly within the province of the jury. . . .* ") (emphasis added); *Consolidated Fruit-Jar Co. v. Wright,* 94 U.S. 92, 94 (1876) ("The result must always depend upon the purpose and incidents accompanying the act or acts relied upon [as public uses]."); *City of Elizabeth v. Pavement Co.,* 97 U.S. 126, 133 (1877); *Manning v. Cape Ann Isinglass & Glue Co.,* 108 U.S. 462, 465 (1882) ("The decided weight of the evidence shows that there was also a public use of the invention. . . . These conclusions of fact are fatal to the complainant's case."); *Cantrell v. Wallick,* 117 U.S. 689, 696 (1886) ("The proof of prior use in this case depends on the testimony."); *Smith & Griggs Mfg. v. Sprague,* 123 U.S. 249 (1887); *International Tooth Crown Co. v. Gaylord,* 140

U.S. 55, 64 (1891) ("[i]n the light of this testimony we are compelled to hold"); *General Talking Pictures Corp. v. Western Elec. Co.*, 304 U.S. 175, 182-83 (1938) ("The district court and circuit court of appeals found that there was no public use. . . . These findings were made upon adequate evidence and petitioner's contentions as to them will not be considered here."). In resolving statutory bar questions, the Supreme Court unquestionably stressed time and again that appellate courts must defer to the factual findings of trial courts.

On at least ten occasions, the Supreme Court clarified that factual inquiry drives section 102(b) issues. Moreover, the Supreme Court repeatedly stressed its deference to the fundamental questions of fact in reviewing statutory bars. At no point does the Supreme Court refer to statutory bars solely as legal issues. The Supreme Court's clear and unwavering treatment of the statutory bars calls into question this court's departure.

This court's predecessor courts both recognized and followed the Supreme Court's rule. The United States Court of Customs and Patent Appeals stated expressly that section 102(b) is an issue of fact in *In re Reese:*

> The board's finding that the tablets defined in the claims of the instant application were "in public use for twenty years prior to the filing date of the application," and were therefore not patentable under 35 U.S.C. § 102(b), *raises an issue of fact.*

290 F.2d 839, 841, 129 USPQ 402, 403 (CCPA 1961) (emphasis added). *In re Reese*, an opinion binding on this court, *see South Corp. v. United States*, 690 F.2d 1368, 1370,

215 USPQ 657, 657-58 (Fed. Cir. 1982) (*in banc*), also followed the Supreme Court's rule.

Even if the Supreme Court and the Court of Customs and Patent Appeals had not spoken, this court would have been bound by the United States Court of Claims precedent. The Court of Claims followed the Supreme Court rule in *Smith v. United States:* "The main issue is validity of the patent in suit over prior domestic and foreign patents, and over a prior public use. *This issue is factual.*" 145 F. Supp. 396, 396, 111 USPQ 135, 135 (Ct. Cl. 1956) (emphasis added). Based on the principle of respect for binding precedent, this court should recognize that it lacks authority to fashion a plenary standard of review for section 102(b) bar issues.[3]

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[3] In addition, pre-Federal Circuit appellate decisions followed the Supreme Court rule. The uniformity of their conclusion that section 102(b) is predominantly a question of fact both buttresses the Supreme Court's rule and strikingly illustrates the aberration of the Federal Circuit's departure. *See, e.g., Watson v. Allen,* 254 F.2d 342, 346-47 (D.C. Cir. 1958); *Atlas v. Eastern Air Lines, Inc.,* 311 F.2d 156, 159-60 (1st Cir. 1962); *McGraw-Edison Co. v. Central Transformer Corp.,* 308 F.2d 70, 73 (8th Cir. 1962); *FMC Corp. v. F.E. Myers & Bros. Co.,* 384 F.2d 4, 10 (6th Cir. 1967); *Lear Siegler, Inc. v. Ark-Ell Springs, Inc.,* 569 F.2d 286, 291 (5th Cir. 1978); *DeLong Corp. v. Raymond Int'l, Inc.,* 622 F.2d 1135, 1141 (3d Cir. 1980); *Del Mar Eng'g Lab. v. Physio-Tronics, Inc.,* 642 F.2d 1167, 1169 (9th Cir. 1981).

Further, early treatises uniformly acknowledged that public use and on sale doctrines are questions of fact, e.g.: "What constitutes public use is ordinarily a question of fact." 2 *Deller's Walker on Patents* § 144 (1964). The 1985 edition of *Lipscomb's Walker on Patents* also states that public use is a question of fact, but then notes: "The decision of the Court of Appeals for the Federal Circuit in *Moleculon Research Corp. v. CBS, Inc.,*

The clear rule of the Supreme Court and this court's predecessors raises the obvious question: How could this court have departed from binding precedent? The first departure occurred in *Barmag Barmer Maschinenfabrik v. Murata Machinery, Ltd.*, 731 F.2d 831, 221 USPQ 561, 565-66 (Fed. Cir. 1984) (the on sale bar is a question of law). Notably *Barmag* did not cite to Supreme Court opinions which uniformly treated the question on factual terms. Rather, *Barmag* stated:

> [A section 102(b) bar is not] itself a fact nor an inference of fact drawn from established facts. *In re Corcoran*, 640 F.2d at 1333, 208 USPQ at 869 (one-year time bar applied under "principles of law"). What Barmag is actually contesting is the court's conclusion on . . . [this] legal issue[ ].

731 F.2d at 837 (citation omitted). With these few words, *Barmag* fashioned an unrestricted standard of review for statutory bars.

Even a passing analysis calls the reasoning of the *Barmag* court into question. *Barmag*'s reliance on *Corcoran* is bizarrely out of context. *See In re Corcoran*, 640 F.2d 1331, 208 USPQ 867 (CCPA 1981). *Corcoran* says nothing about section 102(b) issues as questions of law. *Corcoran* instead refers to resolving a section 102(b)/103 rejection under "the *principles of law* enunciated in *In re Foster.*" 640 F.2d at 1333 (emphasis added). Surprisingly, *In re Foster* does not even hint that section 102(b) is a question of law. *See In re Foster*, 343 F.2d 980, 145 USPQ 166 (CCPA 1965).

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regarding whether "public use" under § 102(b) is a question of fact or a question of law appears to be at odds with the prior cases." 2 *Lipscomb's Walker on Patents* § 7:28.

Statutory bars were not an issue in *Foster*. Neither *Corcoran* nor the cases upon which it relied addressed statutory bars. *Corcoran* simply did not and could not supply authority to depart from binding Supreme Court precedent.

In sum, *Barmag*, the first opinion of this court to stray from the Supreme Court's standard of review, was wrong in at least four ways. First, it erred by citing *Corcoran* for a principle that that case did not even address. Second, it erred by taking the *Corcoran* phrase "principles of law" drastically out of context when that phrase had no reference at all to standards of review. Third, it erred by ignoring the Supreme Court rule. Fourth, it erred by ignoring binding precedent from both the Court of Customs and Patent Appeals and the Court of Claims.

Barmag dealt with on sale bars under section 102(b). Until *Lough*, this court had remained more faithful to the Supreme Court's rule for review of public uses under section 102(b). In *Hycor Corp. v. Schlueter Co.*, 740 F.2d 1529, 1535, 222 USPQ 553, 559 (Fed. Cir. 1984), this court stated, that facts underlying public use are subject to clearly erroneous review. *Hycor* had the virtue of keeping the focus properly on factual inquiry. *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1265, 229 USPQ 805, 808 (Fed. Cir. 1986), next stated that public use is a question of law, with underlying facts subject to clearly erroneous review. Still the focus remained on factual inquiry. This appellate court did not presume to reassess the facts without deference to the fact-finders.

The court in *Lough*, however, purported to abandon factual inquiry: "Whether an invention was in public use

prior to the critical date within the meaning of section 102(b) is a question of law." 86 F.3d at 1120. For that proposition, the *Lough* court cites *Manville Sales Corp. v, Paramount Systems, Inc.*, 917 F.2d 544, 549, 16 USPQ2d 1587, 1591 (Fed. Cir. 1990). *Manville*, however, does not stand for the proposition for which *Lough* cites it:

> Whether or not an invention was on sale or in public use within the meaning of section 102(b) is a question of law that this court reviews de novo; *however, factual findings underlying the trial court's conclusion are subject to the clearly erroneous standard of review. See, Envirotech*, 904 F.2d at 1574, 15 USPQ2d at 1232; *Moleculon*, 793 F.2d at 1266, 229 USPQ at 808.

917 F.2d at 549 (emphasis added). The *Lough* court follows the first part of the above sentence in *Manville* almost verbatim. The *Lough* court, without explanation, refuses to quote or follow the rest of the sentence in *Manville*. In its entirety, the sentence from *Manville* does not make public use a question of law, but instead honors the predominant factual inquiry standard.[4] Thus, *Lough* departs from the deference due trial court findings without any legal basis.

The *Lough* court's error is painfully reminiscent of the *Barmag* error. First, it used an incomplete *Manville* citation to arrive at an inaccurate characterization of the standard of review governing public uses. Second, it erred by

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[4] Subsequent cases have followed in this distortion of binding precedent. *See, e.g., Petrolite Corp. v. Baker Hughes Inc.*, 96 F.3d 1423, 1425, 40 USPQ 1201, 1203 (Fed. Cir. 1996) (*citing Barmag*, 731 F.2d at 836-37); *Baxter Int'l, Inc. v. COBE Lab., Inc.*, 88 F.3d 1054, 1058, 39 USPQ2d 1437, 1441 (Fed. Cir. 1996).

declining to honor Supreme Court and Court of Custom and Patent Appeals precedent. Third, it erred by declining to honor Federal Circuit precedent that had uniformly recognized the clear error standard within the public use context. According to normal rules of precedence, *Lough* lacked authority for its bold change of policy.

Turning next to the standard of review for experimental use,[5] *Lough* again replicates the *Barmag* error. Once again, logic and binding precedent make experimentation to negate public use a fact-driven inquiry, subject to the deferential review which the *Lough* court refused to accord this jury verdict.

Again logic dictates that a "totality of circumstances" analysis depends on factual distinctions. With factual considerations dictating the outcome of the underlying analysis, logic relegates the standard of review to the factual realm as well. Thus, the following statement of the *Lough* court creates a strange illogical juxtaposition: "To determine whether a use is 'experimental,' a question of law, the totality of circumstances must be considered. . . ."[6]

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[5] As noted earlier, the law would not separate experimental use from its context within a section 102(b) bar question and grant it a distinct standard of review. *See TP Lab.*, 724 F.2d at 971. Nonetheless, the *Lough* court adopted this methodology. This dissent examines *Lough* within its own format.

[6] Perhaps the only analog for plenary review of a "totality of circumstances" test within the sweep of law governed by our sister circuits is review of so-called constitutional facts. See, e.g., *Swint v. City of Wadley*, 51 F.3d 988, 996 (11th Cir. 1995); *United States v. Edenfield*, 995 F.2d 197, 200 (11th Cir. 1993); United States v. Bloom, 975 F.2d 1447, 1456 (10th Cir. 1992). With life and liberty at stake, a context hardly similar to the statutory

Lough, 86 F.3d at 1120. Frankly the proposition that experimental use – a judge-made doctrine without any express basis in the Patent Act – is a question of law is absurd on its face. It is hard to imagine how case law decisions made by judges to resolve unique factual cases on a fact-driven issue could create questions of law.

To make matters worse, *Lough*'s assertion that experimental use is a question of law hides as a brief subordinate clause in a sentence of no less than eighty-five words. *Id.* The citations at the end of this loaded sentence do not support at all the assertion that experimental use is a question of law. In fact, each of the three cases cited by the *Lough* court at the end of its paragraph-sentence stand for the proposal that experimental use is a factual inquiry. *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1565, 4 USPQ2d 1210, 1215 (Fed. Cir. 1987) ("The disputed *factual issue of experimental purpose* was material to the decision.") (emphasis added); *Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498, 25 USPQ2d 1290, 1294 (Fed. Cir. 1992) (insufficient evidence was submitted to create a genuine issue of material fact as to party's experimental purpose); *TP Lab.*, 724 F.2d at 972.

The Supreme Court first acknowledged experimental use, a concept without an analog in the patent system of any other country, in *City of Elizabeth*, 97 U.S. at 135. Setting aside the question of whether the law today would allow an inventor to experiment in full public view for over six years with no alterations to the claimed

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bars, appellate courts review probable cause findings without deference. See *Ker v. California*, 374 U.S. 23, 33-34 (1963); *see also Ornelas v. United States*, ___ U.S. ___, 116 S. Ct. 1657 (1996).

invention over that period,[7] the Supreme Court acknowledged that an inventor with a "*bona fide* intent of testing" would not encounter a public use bar. *Id.* In excluding Nicholson's experiment from public use, the Supreme Court "examine[d] the circumstances under which this pavement was put down, and the object and purpose that Nicholson had in view." *Id.* at 133. In other words, the Supreme Court set forth a clear factual test. Questions depending on the "bona fide intent" of a party hardly could be otherwise than factual. Indeed, each time the Supreme Court encountered an experimental use, it deferred to factual findings. *See, e.g., Pennock,* 27 U.S. (2 Pet.) at 16; *Root v. Third Ave. R.R. Co.,* 146 U.S. 210, 225 (1892); *Electric Storage Battery Co. v. Shimadzu,* 307 U.S. 5, 20 (1939). Until *Lough,* this circuit had consistently followed this Supreme Court standard. *See, e.g., Baker Oil Tools,* 828 F.2d at 1565; *Sinskey,* 982 F.2d at 498.

The *Lough* court disregarded the findings of the jury and trial court and forced Lough to re-prove (with all the strictures of a brief appellate record) his experimental

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[7] The law generally recognizes that an experimental use ends with an actual reduction to practice. *RCA Corp. v. Data Gen. Corp.,* 887 F.2d 1056, 1061, 12 USPQ2d 1449, 1453 (Fed. Cir. 1989). On the other hand, the Supreme Court specifically noted: "If durability is one of the qualities to be attained, a long period, perhaps years, may be necessary to enable the inventor to discover whether his purpose is accomplished. And though, during all that period, he may not find that any changes are necessary, yet he may be justly said to be using his machine only by way of experiment; and no one would say that such a use, pursued with a *bona fide* intent of testing the qualities of the machine, would be a public use, within the meaning of the statute." *City of Elizabeth v. Pavement Co.,* 97 U.S. 126, 135 (1877).

use. Thus, the *Lough* court defied logic and binding precedent to make experimental use a question of law. The casualties of this error, in addition to Mr. Lough, are the certainty and predictability of statutory bar law.

III.

A significant part of the *Lough* court's error is abstracting experimentation out of the public use inquiry and designating it a separate "question of law." *Lough*, 86 F.3d at 1120. This incorrect methodology flies in the face of the teaching in *TP Lab.*: "[I]t is incorrect to impose on the patent owner, as the trial court in this case did, the burden of proving that a 'public use' was 'experimental.' These are not two separable issues. It is incorrect to ask: 'Was it a public use?' and then, 'Was it experimental?' Rather, the court is faced with a single issue: Was it a public use under section 102(b)?" 724 F.2d at 971. This court in *TP Lab.* taught that experimental use is not an exception to public use, but a negation. In other words, experimental use is not a separate exception with its own standard of review or its own multi-factored test. Instead an experimental use by definition does not abandon the invention to the public.

Disregarding *TP Lab.*, the *Lough* court addressed itself to a separate doctrine of experimental use, for which it created a new standard of review separate from public use. The jury and the trial court had correctly answered the correct question: whether Lough gave his invention into public use. The *Lough* court transformed the question: "The question framed on appeal is whether Lough's alleged experiments lacked enough of these required

indicia so that his efforts cannot, as a matter of law, be recognized as experimental." 86 F.3d at 1121. To reach its incorrect result, the *Lough* court had to separate experimental use from its proper context of public use, then create a separate list of *required elements* for a factual inquiry, and finally make the separate list a question of law to avoid the deference due to the jury verdict. Each error sent the *Lough* court fishing in deeper waters without a license.

The *Lough* court made the same mistake as the trial court in *TP Lab.*: "[I]t is incorrect to impose on the patent owner, as the trial court in this case did, the burden of proving that a 'public use' was 'experimental.' " 724 F.2d at 971. In fact, in *TP Lab.*, the inventor had used the invention nearly four years before filing, *id.* at 967, had kept only records that were "scanty at best," *id.* at 969, and had shown control over the invention only "inherently by the dentist-patient relationship," *id.* at 972. Yet the Federal Circuit, in a case strikingly similar to *Lough*, discerned no public use. *Id.* at 973. More important, the Federal Circuit in *TP Lab.* warned against divorcing experimentation from its public use context – the *Lough* court's initial false turn on its unauthorized fishing expedition.

IV.

The mischief of *Lough*'s plenary review standard is even more egregious because public use rests on an evaluation of the totality of the circumstances. 35 U.S.C. § 102(b) (1994); *see Manville Sales*, 917 F.2d at 549. As

noted earlier, the Supreme Court set forth a predominantly factual inquiry for application of the statutory bars. *See* cases cited *supra* at pp. 5-6. The Supreme Court, for good reason,[8] assigned the public use factual inquiry to trial, not appellate, courts. *See, e.g., Kendall,* 62 U.S. (21 How.) at 331 ("The real interest of an inventor with respect to an assertion or surrender of his rights . . . is an inquiry or conclusion of fact, and peculiarly within the province of the jury. . . . "). Without the discipline of the limited standard of review under the Supreme Court's rule, an appellate court may pick, choose, and reassess

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[8] Those who doubt the difference between a cold, abridged, written appellate record and the living, detailed, and emotion-charged courtroom need to read Ludwig Wittgenstein's philosophical observations (communication lacks meaning divorced from its entire context) and contemplate: What does a witness mean by the answer, "I believe so." Is this assent to the proposition? Is this an expression of doubt in the proposition? Is this a description of the witness's state of mind (tentative belief) or a description of an actual state of affairs (it is so!)? In other words, how is an appellate court to assess this factual record: "Q: Mr. Inventor, did you intend to experiment? A: I believe so."?

This ambiguity and complexity multiples with the number of witnesses – each with their own peculiar personality, perception, and perspective. An appellate tribunal is simply not equipped in time or tools to unlock the mysteries of the single testimonial snowflake (e.g., "I believe so."), let alone the swirling blizzard of trial evidence. Our trial system – multiple jurors with an experienced trial judge as a check – may have flaws, but remains a "palladium of free government," and "an excellent method of determining questions of property." The Federalist No. 83, at 499, 501 (Alexander Hamilton) (Clinton Rossiter ed., 1961). For wise purpose, the Supreme Court commended factual inquiry to the trial system.

various circumstantial factors. No wonder this undisciplined exercise produces inconsistent and irreconcilable results.[9] No wonder commentators excoriate this court's random application of the "totality of circumstances" test.[10]

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[9] The dissent in *Atlantic Thermoplastics Co. v. Faytex Corp.*, 5 F.3d 1477, 1482-88, 28 USPQ2d 1343, 1347-52 (Fed. Cir. 1993), notes that the Federal Circuit has set forth at least three different tests for application of section 102(b).

[10] *E.g.*, William K. West, Jr. & Nancy J. Linck, *The Law of "Public Use" and "On Sale": Past Present and Future*, 72 J. Pat. & Trademark Off. Soc'y 114, 115 (1990) ("[T]he court's insistence on a 'totality of the circumstances' test may tend to make predictability of result . . . even more difficult than in former times."); Jorgensen, supra note 1, at 213 ("[T]he Federal Circuit has lacked consistency in its application of the on sale and public use bars of section 102(b). . . . Instead, confusion remains the central theme. . . . "); Stephen R. Schaefer, Comment, *Envirotech Corp. v. Westech Engineering, Inc.: The On-Sale Bar to Patentability and Executory Sales Offers*, 75 Minn. L. Rev. 1505, 1508 (1991) ("[T]he application of the on-sale bar provision lacks predictability, fails to inform the inventor . . . and, thus, fosters litigation."). This confusion has also been critically noted by commentators:

> [T]he Federal Circuit needs to resolve inconsistencies in its precedent regarding the policy underlying experimental use itself, the factual/legal nature of experimental use. . . . Only by returning to the law as it stood over 100 years ago and by keeping an eye on the policy underlying experimental use could the Federal Circuit return the law in this area to a state of common sense and reasonable, if not sublime, simplicity.

Rooklidge & Jensen, *supra* note 1, at 49-50.

Indeed *Lough* illustrates the arbitrariness of reapplying a factual "totality of circumstances" test on an appellate record without any deference to the fact-finding of the trial court. *Lough* lists several indicia of experimentation, including: 1) the number of prototypes and the duration of testing; 2) the attention to records or reports during testing; 3) the existence of a confidentiality arrangement; 4) the receipt of any commercial advantage by the patentee; and 5) the inventor's control over the testing. Although a brief review of prior Federal Circuit cases calls into question the sufficiency of this listing,[11] at this point it is more important to show that the *Lough* court's application of its own indicia conflicts with binding Federal Circuit cases.

Beginning with the first indicator, *Lough* gave no analysis to its own first factor at all. The *Lough* court might have noted Lough's few prototypes or the limited

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[11] Other panels of the Federal Circuit, as might be expected of a "totality of circumstances" analysis, list different "indicia." *See, e.g., TP Lab.*, 724 F.2d at 971 (indicia include length of test, whether payment was made, conditions of secrecy, whether records were kept, who conducted the tests, and the number of tests conducted); *Manville Sales*, 917 F.2d at 550 (indicia for totality of the circumstances are the policies underlying the bar, not separate experimental use indicia); *Harrington Mfg. v. Powell Mfg.*, 815 F.2d 1478, 1480, 2 USPQ2d 1364, 1366 (Fed. Cir. 1986) (adding indicia of public necessity); *Baker Oil Tools*, 828 F.2d at 1564 (adding indicia of public testing in relation to nature of experiment); *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1574, 35 USPQ2d 1840, 1842 (adding indicia of public access to and knowledge of the public use). These differing lists disclose again the appellate disposition, in the absence of a disciplined standard of review, to pick and choose amongst factors to reach inconsistent results.

duration of his testing. In fact, in view of the six years of open air testing in *City of Elizabeth*, 97 U.S. at 133, or more than a year of open display in *Moleculon*, 793 F.2d at 1263, the *Lough* court might well have followed prior cases to assess this indicator strongly in favor of experimentation. After all, Lough conducted a far more limited test than in *City of Elizabeth*, limiting his testing to six invisible prototypes over the course of one year to ensure that his invention would work in the harsh marine environment.

On the second indicator, the *Lough* court weighed this harshly against Lough to undercut his experimentation claim. *Lough*, 86 F.3d at 1121. The *Lough* court declined to note that, although not keeping formal written records, Lough had taken photographs to monitor the installed seal assemblies during the experimentation period. In view of several cases that detected an experimental use despite a lack of formal record keeping on the testing, *TP Lab.*, 724 F.2d at 969 (finding experimental use with "scanty" records "at best"); *Manville Sales*, 917 F.2d at 551 (finding experimental use with one memorandum of intent to experiment, but no records of testing), the *Lough* court might well have followed prior cases in seeing this factor as no obstacle to Lough's claim of experimentation.

The *Lough* court did not analyze its own third indicator. Lough, however, testified that he only shared his experimental prototypes with a few individuals – with whom he shared a close personal or professional relationship – who he knew would maintain his secrecy. In view of Federal Circuit cases that inferred confidentiality on the basis of the close association of the patentee and the testers, *see, e.g.*, *Moleculon*, 793 F.2d at 1266, *TP Lab.*, 724 F.2d at 972, the *Lough* court might well have weighed this

indicator in favor of, rather than against, experimentation.

On the fourth indicator, the *Lough* court lukewarmly acknowledged Lough's steadfast refusal to commercially exploit his invention before filing. *Lough*, 86 F.3d at 1121. In view of Federal Circuit cases that attached great, perhaps dispositive weight, to this factor, *see, e.g., Ferag AG v. Quipp, Inc.*, 45 F.3d 1562, 1566, 33 USPQ2d 1512, 1515 (Fed. Cir. 1995) ("Foremost among these is the policy of preventing inventors from exploiting the commercial value of their inventions while deferring the beginning of the statutory term.") and *Moleculon*, 793 F.2d at 1266-67, the *Lough* court might well have given this factor considerable weight in favor of a finding of experimentation.

On the fifth indicator, the *Lough* court weighed this strongly against Lough. Once again, however, the record shows that Lough selected friends and professional associates over whom he had control by virtue of their relationship. In view of prior Federal Circuit cases permitting close relationship and notification of experimental purpose to substitute for full control, *see, e.g., Moleculon*, 793 F.2d at 1266-67, and *LaBounty Mfg. v. United States International Trade Commission*, 958 F.2d 1066, 1072, 22 USPQ2d 1025, 1029 (Fed. Cir. 1992) (suggesting that notification of experimental purpose may substitute for control), the *Lough* court might well have balanced this factor in favor of Lough.

Further, to buttress its own factual finding on appeal that Lough lacked control over the experiment, the *Lough* court used reasoning in conflict with other Federal Circuit cases. For instance, the *Lough* court noted that the

experimental use involved Lough's associates rather than Lough himself. *Lough*, 86 F.3d at 1121-22. Other binding Federal Circuit cases have held that participation by others in the experiment does not show a lack of control. *See TP Lab.*, 724 F.2d at 972 ("routine checking of [success of invention] by one of the [inventor's associates] does not indicate the inventor's lack of control"); *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 906, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988) (submitting samples of invention to food manufacturers for determination of the product's utility did not negate experimentation). Additionally, the *Lough* court criticized the fact that one of the boats containing the experimental seal was sold at some point after the conclusion of the experiment. *Lough*, 86 F.3d at 1121. This indicator has also been held not to constitute a loss of control. *See Watson v. Allen*, 254 F.2d 342, 347, 117 USPQ 68, 71 (D.C. Cir. 1958) ("We believe the protective umbrella of the experimental use doctrine should include reasonable disposal of models and prototypes of the invention once their usefulness to the inventor has ended – reasonable in view of the nature of the device and the probability of discovery and appropriation of the invention by strangers."); *Goodwin v. Borg-Warner Corp.*, 157 F.2d 267, 273, 70 USPQ 387, 393 (6th Cir. 1946) (finding experimentation although automobile containing seal was later sold).

Moreover, several binding Federal Circuit cases analyze indicators the *Lough* court chose to ignore. These unacknowledged indicators further buttress Lough's case against a public use. For instance, another indicator appearing in binding precedents is the inventor's careful tailoring of the tests to the nature of the invention. *See*

City of Elizabeth, 97 U.S. at 136; *Manville Sales*, 917 F.2d at 550-51; *Allied Colloids*, 64 F.3d at 1575; *see also Caterpillar Tractor Co. v. Berco, S.P.A.*, 215 USPQ 948, 958 (D. Wyo. 1982) (finding experimental purpose where "tests for durability and performance are conducted by those who will eventually be using the product under conditions which are likely to be difficult to duplicate in the lab"), *aff'd on other grounds*, 714 F.2d 1110 (Fed. Cir. 1983). The record shows Lough designed his experiments to test the invention in various kinds of boats in various marine environments. Indeed a careful assessment of this indicator might also recognize that the necessity of testing under varying circumstances militates against maintenance of full control at all times over the testing.

Still another indicator appearing in binding precedents is the hidden nature of an experiment.[12] In determining whether an inventor intended to experiment, an invisible use may add plausibility to the inventor's explanation that he perceived little need to take further precautions to protect confidentiality. *See, e.g., Manville Sales,*

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[12] Case law distinguishes the notoriety or openness of an experiment from the notoriety or openness of a public use in general. As the Supreme Court held in *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881), a barring use – in this case an innovative undergarment – need not be open and notorious to be "public." Because Egbert himself put the invention into use eleven years before filing for patent protection, the corset worn by Egbert's intimate friend, though not in view, was abandoned to the public. *Id.* at 337-38. Such evidence might have been viewed differently, however, if experimentation had been at issue in *Egbert*. *See id.* at 337 ("They were not presented for the purpose of experiment, nor to test their qualities. No such claim is set up in her testimony.").

917 F.2d at 550 ("[T]he invention was mounted atop a 150-foot tall pole in a rest area still closed to the public, making it very unlikely that the public would even see the new design."); *Allied Colloids*, 64 F.3d at 1574 (public access to and knowledge of the public use is one of the factors to consider). This factor, too, if considered by the *Lough* court, would have helped Lough. In picking and choosing amongst *its* "totality of circumstances," the *Lough* court sadly did not consider *the* totality of the circumstances.

In sum, this brief comparison of the *Lough* court's assessment of the totality of the circumstances with the same assessment by prior Federal Circuit cases shows the plastic malleability of a totality of circumstances test when divorced from the discipline of a deferential standard of review. An appellate panel can pick and choose amongst malleable circumstances to reach results irreconcilable with other Federal Circuit decisions.

This comparison also shows the plausibility of the jury's unanimous verdict in *Lough*. For each and every indicator under the *Lough* court's abbreviated totality of circumstances analysis, this record provides factual support for the jury's conclusion. Under Federal Circuit law, the *Lough* jury had a very solid foundation for its result. Frankly, this comparison makes the *Lough* court's conclusion ("the jury had *no legal basis* to conclude that the uses of Lough's prototypes were experimental," *Lough*, 86 F.3d at 1122 (emphasis added)) seem very strained.

V.

As noted earlier, no area of Federal Circuit jurisprudence has produced more outright criticism than its review of statutory bars. Plenary standards of review contribute to unpredictability and inconsistency by multiplying at the appellate level the uncertainties of a "totality of circumstances" analysis. Nonetheless the "totality of circumstances" format itself may well be chiefly responsible for the confusion.

This observation may seem to lay the blame for chaos at the steps of the Supreme Court because this nation's highest court repeatedly called for factual inquiry to resolve statutory bar cases. To the contrary, factual inquiry differs from a standardless "totality of circumstances." The "totality" test recognizes no hierarchy or principle to guide factual inquiry. The experience of the common law teaches that generally some facts are more important than others. These "more important" facts serve as touchstones lending predictability and consistency to the law. The "totality" test, however, starts each inquiry from scratch and abandons the experience that Holmes denoted the "life of the law." Oliver Wendell Holmes, *The Common Law* 1 (1881).

The chief mischief of the "totality" test lies in beginning each factual inquiry anew without reference to the experience of the common law. Thus, for instance, in ascertaining whether an inventor possessed a *bona fide* intent to experiment, the absence or presence of premature commercial exploitation might disclose more about the inventor's intent than the duration of the testing or some other factor. Thus the twin touchstones for statutory

bar analysis – premature economic exploitation (usually) in the marketplace[13] (particularly applicable to on sale bars) and creation of a widespread expectation that the public is free to use the invention (particularly applicable to public use bars) – ought to guide and restrain factual inquiry at the trial court level. Indeed Federal Circuit cases have so held. *Ferag AG*, 45 F.3d at 1566.

In this case, the jury determined that Lough did not sell or otherwise exploit his seal, nor did he create the public expectations by his uses. Instead he conducted limited tests to ensure his invention seal worked. Moreover the jury determined that Lough maintained adequate monitoring and control over his testing to show that he was really experimenting, not exploiting or surrendering his invention. The *Lough* court, however, reweighed these findings as "questions of law" and chose to find in its own peculiar "totality of circumstances" a bar. Without a more rule-based standard for assessing the facts and with appellate courts reassessing the facts without deference, predictability and certainty will remain barred from section 102(b) jurisprudence.

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[13] *Egbert*, the famous corset case, is the classic example of exploiting an invention without seeking commercial benefit. 104 U.S. at 336.